COUNTWAY LIBRARY
HC 2W1B W

REGISTERED C. 6 ... E OF CONTENTS SEE PAGE II.

THE INDIAN LANCET.

A Weekly Journal of Medicine, Surgery, Public Health and of General Medical Intelligence.
Edited by RUDOLPH MONNIER M.B., M.S., Edin.

Vol. XXXI.] CALCUTTA, MONDAY, JANUARY 6th, 1908. [No. 1

Lactopeptine
For Indigestion and Dyspepsia

BOSTON MEDICAL LIBRARY MAR 2

The Physician's
Daily Round will afford
many opportunities for prescribing
LACTOPEPTINE.

"Composed of *ptyalin*, *pepsin*, *pancreatine*, *hydrochloric* and *lactic acids*, it is a combination of all the digestive agents, consequently can never be administered without giving the utmost satisfaction."

For 30 YEARS proved itself efficient in

Infantile Diarrhœa, Dyspepsia,
Acute Indigestion, Morning Sickness,
Impaired Nutrition,

General Debility, Loss of Appetite, Constipation, Marasmus, and other Diseases of the Digestive Function.

"One of the Certainties in Medicine, and in this respect ranks with Quinine."

In 1-oz., 4-oz., and 8-oz. bottles.

JOHN MORGAN RICHARDS & SONS, Ltd.,
46 Holborn Viaduct,
London, E.C.

THE INDIAN LANCET.

Vol. XXXI.] CALCUTTA, MONDAY, JANUARY 6th, 1908. [No. 1

Contents.

ORIGINAL ARTICLES.

Some Aspects of Pelvic Appendicitis.—By G. Grey Turner, M.S. (Dukh.), F.R.C.S. 1

Syphilis in Children.—By Ludwig Weiss M.D. 9

A MIRROR OF PRACTICE

Treatment of Acute Dilatation of the Heart.—Treatment of Vaginitis.—Valuable Vaginal Antiseptic. ... 14

ANNOTATIONS. 15

LEADING ARTICLES.

Our New Year's Greetings. ... 16

Physical Exercise and Health. ... 17

CURRENT MEDICAL NEWS.

Intoxicating Drugs in Burma. ... 18

Rabies in Ceylon.—Plague Prevention at Bangalore.—Snakebite Mortality in Burma. 21

Plague in the Presidency.—Death from Worry.—Plague Returns... ... 22

SHORT ITEMS 22

CURRENT MEDICAL LITERATURE

MEDICINE 25

SURGERY 26

OBSTETRICS 26

PATHOLOGY 29

THERAPEUTICS 29

CORRESPONDENCE

The Governor of Bombay on Plague Prevention.—Anti-Plague Inoculation. ... 33

Plague.—Influenza.—Doctors and Liquor. Fighting Sleeping Sickness.—The Cholera. 34

Lucknow Medical College 4

REVIEWS OF BOOKS 4

GOVT. MED. NOTIFICATIONS ... 4

The Greatest Time-Saving and Tube-Saving Invention in Clinical Thermometers.

A 30 SEC. CLINICAL RESET IN AN INSTANT

IS THE "REPELLO."

LITERALLY:

"I PUSH BACK."

ZEAL'S PATENT No. 19593.

No Shaking Down, Glass throughout. Hermetically Sealed Press flattened bulb at top and it is instantly reset. Nothing to go wrong. Tested and passed at Kew. Patented U.S.A. and on the Continent.

All our Thermometers are made from "Normal Glass" which prevents the bulb contracting, making them perfectly accurate for all time.

G. H. ZEAL, 82 Turnmill St. London, England, Manufacturers of all kinds of Clinical and other Thermometers.

To be obtained of all Instrument Houses, Chemists and Opticians.

MRS. WILSON.

Midwife and sick-nurse. Good Medical references. Open to town and mofussil engagements. Charges moderate.

HEADACHES.

The great majority of headaches and so-called bilious attacks arise from defective eyes, and would be entirely prevented by wearing the proper glasses. Many people who seem dull, and stupid, would be found to be intelligent and bright if their eyes were attended to and their eye-strain relieved by the use of proper glasses. Mine is a new firm, and the most up-to-date in all its methods.

WALTER BUSHNELL, F.I.O., F.S.C.M., D.B.O.A.,

Certificated Eyesight Specialist,

13, DALHOUSIE SQUARE, CALCUTTA.

WANTED—KNOWN—COLLEGE OF Physicians and Surgeons of Calcutta: First Arts Entrance and Middle English students desirous of being admitted to the M. C. P. S. and L. C. P. S. classes should have their names enrolled without any further delay. Session 1907-08 commenced 15th June. Dissections; Hospital and Outdoor Dispensary. Prospectus on application. Further particulars, apply DR. RUDOLPH MONNIER, Secretary, 3, Wellesley Street.

WEST END KEYLESS LEVER STOP WATCHES,

Registering fifths of seconds and minutes up to 30 minutes.

NICKEL Rs. 70.

STERLING SILVER Rs. 90.

A CARAT GOLD (with gold dome) Rs. 250.

Very Superior Watches in every detail and which can be relied upon for exact performance on all occasions. For particulars refer to price list.

THE WEST END WATCH Co.,

11, Hornby Road. BOMBAY CALCUTTA, 14. Dalhousie Square.

FOR TABLE OF CONTENTS SEE PAGE II.

REGISTERED C. 6

THE

INDIAN LANCET.

A Weekly Journal of Medicine, Surgery, Public Health and of General Medical Intelligence.

Edited by RUDOLPH MONNIER M.B., M.S., Edin.

Vol. XXXI.] CALCUTTA, MONDAY, MARCH 9th, 1908. [No. 10

SAUNDERS' BOOKS ON GYNECOLOGY

Kelly and Noble's Gynecology and Abdominal Surgery

VOL. I.—JUST ISSUED
VOL. II.—READY SOON

Kelly and Noble's Gynecology and Abdominal Surgery is unique, in that it combines in one work a complete presentation of both medical and surgical gynecology, together with a full treatise on abdominal surgery. It possesses a number of valuable features not to be found in any other publication covering the same fields. It contains a chapter upon the bacteriology and one upon the pathology of gynecology, dealing fully with the scientific basis of gynecology. In no other work can this information, prepared by specialists, be found as seperate chapters. There is a large chapter devoted entirely to medical gynecology, written especially for the physician engaged in general practice. Heretofore the general practitioner was compelled to search through an entire work in order to obtain the information desired. Abdominal Surgery proper, as distinct from gynecology, is fully treated, embracing operations upon the stomach, upon the intestines, upon the liver and bile-ducts, upon the pancreas and spleen, upon the kidneys, ureter, bladder, and the peritoneum. Special attention has been given to modern technic, and illustrations of the very highest order have been used to make clear the various steps of the operations. Indeed, the 650 original illustrations are truly magnificent, being the work of Mr. Herman Becker and Mr. Max Brodel, of the Johns Hopkins Hospital. A number are in colours.

Edited by Howard A. Kelly, M.D., Professor of Gynecology in Johns Hopkins University; and Charles P. Noble, M.D., Clinical Professor of Gynecology in the Woman's Medical College, Philadelphia. Two imperial octavo volumes of 900 pages each, containing 650 original illustrations, some in colours. Cloth, per volume, 35s. net.

Webster's Diseases of Women

JUST ISSUED

Dr. Webster, owing to his long clinical experience, has been enabled to present his subject in a way most acceptable to the general practitioner, emphasising the significance of the symptoms and phenomena observed, and the therapeutic measures, both medical and surgical, to be instituted. Special endeavour has been made to include all the important original investigations of recent years, so that the work represents the present-day knowledge upon a subject of the greatest importance to every practitioner. Throughout the book Dr. Webster has discussed the clinical features of the subject in their widest relations to general practice rather than from the standpoint of specialism. To further the practical character of the work, the text has been very fully elucidated with three hundred and seventy-two magnificent text-illustrations and ten insert plates in colours. The SCOTTISH MEDICAL AND SURGICAL JOURNAL says: "The work can be confidently recommended as a text-book to students, and a reference work to practitioners."

Octavo volume of 712 pages, with 372 text-illustrations and 10 plates. By J. Clarence Webster, M.D. Edin., F.R.C.P.E., F.R.S.E., Professor of Gynecology and Obstetrics in Rush Medical College, Chicago. Cloth, 30s. net.

Ashton's Practice of Gynecology

JUST ISSUED
NEW (3RD) EDITION

A new edition of Dr. Ashton's Practice of Gynecology has been demanded every six months, indicating that the profession has been quick to appreciate the practical value of the work. The author not only tells his reader in every instance what should be done, but also precisely how to do it. A distinctly original feature consists in the 1057 line drawings, made especially under the author's personal supervision. These drawings show the procedures and operations without obscuring their purpose by unnecessary anatomic surroundings. The SCOTTISH MEDICAL AND SURGICAL JOURNAL says: "The thoroughness of the descriptions of operative details, and of the successive steps of operations, the inclusion of such modern methods as the use of X-Rays in Gynecology, and the general fairness shown by the author in his statement of disputed points, combine to make the book a valuable one."

By W. Easterly Ashton, M.D., Professor of Gynecology, Medico-Chirurgical College, Philadelphia. Cloth, 27s. 6d. net.

Send for Saunders' Complete Illustrated Catalogue.

W. B. SAUNDERS & Co., 9, Henrietta St., London, W.C.

Australian Agency: 430, Bourke St., Melbourne, where our books can be obtained at London prices.

THE INDIAN LANCET.

Vol. XXXI.] CALCUTTA, MONDAY, MARCH 9th, 1908. [No. 10

Contents.

ORIGINAL ARTICLES.

Disorders of the Respiratory Organs.—By Josiph G. Levy A.B., M.D. ... 395

The Treatment of Chronic Valvular Diseases of the Heart.—By Thomas E Satterthwaite, M.D. 397

Infantile Paralysis.—By Guthrie Rankin M.D, F.R.C.P. (Edin) M.R.C.P., Lond. 400

Practical Experiences with Cellotropin. By Dr. J. Weiss, Vienna. ... 404

Principles of Surgery.—By Stuart Mc Guire, M.D. 406

Diet as a Therapeutic Measure in Diseases of the Skin.—By George Henry Fox, A.M., M.D. 409

A MIRROR OF PRACTICE

Some Considerations in the Use of Cardiac Tonics. 411

LEADING ARTICLES.

Cats and Plague. 412

ANNOTATIONS.... 413

CURRENT MEDICAL NEWS.

Serious Allegations Against the Corporation. 414

Eyesight of Children in India.—A Plea for the Leper.... 417

Bombay Plague Relief Fund.—National Medical College of India. ... 418

SHORT ITEMS 418

CURRENT MEDICAL LITERATURE

MEDICINE 421

SURGERY 422

OBSTETRICS 428

PATHOLOGY 428

THERAPEUTICS 428

CORRESPONDENCE

Leprosy. 429

The Tse-Tse Fly in India.—Plague and Fleas. 430

Lady Minto's Indian Nursing Association.—The Drug Habit 433

Defective Cow-Sheds.—The Protection of Plague Fugitives.—The Latest Cure for Consumption. 434

REVIEWS OF BOOKS 437

GOVT. MED. NOTIFICATIONS ... 437

The Greatest Time-Saving and Tube-Saving Invention in Clinical Thermometers.

A 30 SEC. CLINICAL RESET IN AN INSTANT

IS THE "REPELLO."

LITERALLY: "I PUSH BACK."

ZEAL'S PATENT No. 19593.

No Shaking Down, Glass throughout. Hermetically Sealed Press flattened bulb at top and it is instantly reset. Nothing to go wrong. Tested and passed at Kew. Patented U.S.A. and on the Continent.

All our Thermometers are made from "Normal Glass" which prevents the bulb contracting, making them perfectly accurate for all time.

G. H. ZEAL, 82 Turnmill St. London, England,

Manufacturers of all kinds of Clinical and other Thermometers.

To be obtained of all Instrument Houses, Chemists and Opticians.

MRS. WILSON.

Midwife and sick-nurse. Good Medical references. Open to town and mofussil engagements. Charges moderate.

HEADACHES.

The great majority of headaches and so-called bilious attacks arise from defective eyes, and would be entirely prevented by wearing the proper glasses. Many people who seem dull, and stupid, would be found to be intelligent and bright if their eyes were attended to and their eye-strain relieved by the use of proper glasses. Mine is a new firm, and the most up-to-date in all its methods.

WALTER BUSHNELL, F.I.O., F.S.C.M., D.B.O.A.,

Certificated Eyesight Specialist,

13, DALHOUSIE SQUARE, CALCUTTA.

COLLEGE OF PHYSICIANS AND SURGEONS OF CALCUTTA.

3, Wellesley Street, Calcutta.

FINAL EXAMINATIONS.

For the diplomas of Licentiate L.C.P.S.) and membership (M.C.P.S.) will commence from 4th March 1908.

All candidates who intend to appear for either of these examinations should write for further particulars to the Secretary.

VICHY ETAT

AGAINST

ARTHRITISM, GOUT, RHEUMATISM

VICHY ETAT

Drink at every meal

VICHY CELESTINS

The best of all Mineral Waters.

General Agents for British India:

EUGENE MEIFFRE, Calcutta.

THE ONLY RELIABLE DISINFECTANT EXTANT.

BEWARE OF SPURIOUS IMITATIONS.

NINETEEN GOLD SILVER AND OTHER MEDALS AND AWARDS

SOLE AGENTS
M. M. FRASER & CO.,
59, BENTINCK STREET
CALCUTTA

PROPRIETORS & MANUFACTURERS:

MORRIS, LITTLE AND SON, DONCASER, ENGLAND

The Medical Profession

of almost every country has found, after exhaustive **trial, that for permanency,** palatability, and perfection in **manufacture, nothing takes** the place of

Scott's Emulsion

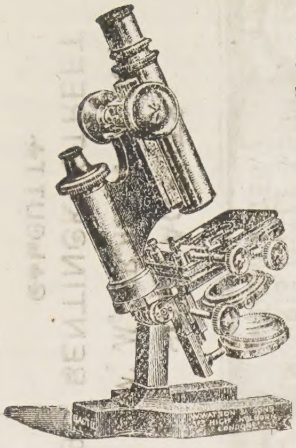
of Pure Norway Cod-liver Oil with Hypophosphites **of Lime and Soda. Scott's Emulsion** is always **uniform in quality, permanent** in form, and its integrity cannot **be doubted. It is a perfect** emulsion.

We respectfully request that Physicians will give **Scott's Emulsion a trial in all cases where** Cod-liver Oil is indicated.

SCOTT & BOWNE (Ltd.), Manufacturing Chemists, (2)
95 to 98, Great Saffron Hill, and 13, Cross Street, Hatton Garden, E.C.

Removed to 10/11 Stonecutter Street, Ludgate Circus, LONDON, E.C.

WATSON & SONS' "BACHIL" Microscope



Is fitted with a Compound Sub-Stage having screws to centre and rackwork to focus together with a Mechanical Stage of

Unique Design.

This Stage gives a horizontal traverse of 2 inches and a vertical of 1 inch. When desired, the fittings containing the horizontal movement can be entirely removed, leaving a large clear surface to the stage and a vertical Mechanical Movement.

An Ideal Laboratory Microscope,

Price £8-17-6

The above Instrument complete with Two Eyepieces, ⅔in. and ⅙in. Objectives, Abbé Illr. Double Nosepiece and Mahoghany Case, £ 14-0-0

Send for Microscope List No. 2 L.

WATSON'S ELECTRO THERAPEUTIC APPARATUS.

For X-Ray and High Frequency treatment.

Watson's Intensified Induction Coil and Moto. Magnetic Break—working on any Voltage from 12 to 200—are unique.

Full illustrated list No. 7L sent post free on application.

W. WATSON & SONS, 313, High Holborn, London, W.C., Established 1837.

THE INDIAN LANCET.

SUBSCRIPTIONS *(payable in advance)*:—

Rs. 18 For Government Medical Officers, Civil and Non-official Physicians and Surgeon

Rs. 10-8 For Medical Missionaries, Assistant-Surgeons, and Apothecaries.

Rs. 7-8 For Hospital-Assistants and Medical Students

Unless notice be given to discontinue a subscriber's name on our list it will be carried on for a further term.

*** Single copies, current issue, 8 annas each. Old issues, **Re. 1 per copy** copies supplied for broken periods will be charged for at 8 As. each

All Business Communications referring to Advertisements, Changes of Address, &c., should be addressed to the Manager. 3 Wellesley Street, Calcutta

Sole Agents in Great Britain.

Messrs GORDON & GOTCH 15 St. Bride Street, Ludgate Circus London, E.C.

B. P. CHEMICALS

Acid. Sulph. Pur.	Alcohol 90 0/0.
„ Hydroch Pur.	Sp. Vini Rect 60 0/0.
„ Nitric Pur.	Aether Purificatus.
Liq. Ammon. Acet. Fort.	Collodium.
„ Ferri Perchlor.	Sp. Amon. Arom.
„ Zinci Chlor.	„ Aether Nit.

Manufactured According to British Pharmacopia and Guaranteed Pure Cheap rates for wholesale Buyer

D. WALDIE & CO., CALCUTTA.

CYONA.—CYONA.—CYONA

FAMOUS REMEDY FOR SORES, WOUNDS, CUTS.

BRUISES, etc, etc.

(HUMAN AND VETERINARY.)

Tincture—Oil—Ointment—Powder

Can be obtained from all Chemists.

DELICIOUS

RED WHITE & BLUE

COFFEE.

For Breakfast & Dinner

HIGHEST MEDICAL AUTHORITIES PRONOUNCE

KESHRANJAN

THE KING OF ALL HAIR-OILS,

as acknowledged by the Nobility and Gentry of the Indian Empire and respectable Ladies of many a household, is our world-renowned, medically prepared and highly-scented—KESHRANJAN OIL. It refreshes the mind, cools the heated brain, imparts energy to overworked system and is a fitting toilet requisite for Ladies and Gentlemen alike.

Price per phial	... Rs. 1
Packing and postage	... As. 5
3 Small Phials	... Rs. 2-4
Packing and postage	... As. 9

OUR SONITASODHAK CURES Black and White leprosy, burning sensation in the palms of the hands and the soles of the feet, swelling of nose, ears and tips of fingers and heaviness of body, black spots over the skin, paleness and weakness of body, &c. Price for a fortnight Rs. 4; Packing and Postage As. 11.

PRESCRIPTIONS with or without Medicines are sent to every part of India, Burma, Ceylon, Strait Settlements, Cape and the British Isles, on receipt of a concise account of diseases.

Kaviraj Nagendra Nath Sen,

GOVT. MEDICAL DIPLOMA-HOLDER,

Member of the Chemical Society, Paris; Society of Chemical Industry, London; Surgical-Aid-Society London, &c., &.

Nos. 18-1 & 19, Lower Chitpur Road, Calcutta.

LAWRENCE & LYNCH'S

"EYE-KEEP" DROPS

Registered and Protected against Infringements under the Trade Marks Act.

THE new and painless application for Diseases of the Nerves, Muscles, Veins, Arteries and Capillaries connected with the Organ of Vision. It gives new strength, vitality and brilliancy to weak, fading and old eyes. It soothes Congested, Inflamed, Watery and Overstrained Eyes; corrects Dimness of Sight, specks before the Eyes, Intolerance of Light, Acute and Chronic Ophthalmia, Short-sightedness, Colour and Night-blindness, Ulceration of the Cornea, bloated Eye-sac, Fatty covering over the Eyeball, and other Diseases peculiar to the Eyes, however Chronic they might be. On account of its undisputed power of absorbing the curd-like whitish crystalline film of Cataract from the very root, it has been pronounced a real boon by all those suffering from this distressing and most dangerous disease, avoiding by its use a most delicate, painful and risky operation. Being composed of pure drugs which have, after years of experience, given the best results, it is perfectly harmless and can never possibly do any injury even to the most delicate and sensitive eyes. ☞ It is perfectly safe in the most inexperienced hands; whilst on account of its cool, pleasant and most refreshing sensation to the eyes it is, whilst being used, scarcely looked upon as a medicine. ☞ Its introduction has made a radical change in the treatment of eye-diseases, and thousands of patients all over India gratefully remember the day they first saw our advertisement, and putting aside all prejudice gave it a fair trial.

DIRECTIONS enclosed.—Per bottle, Rs. 2. Dozen, Rs. 22.

THOUSANDS LIKE THE FOLLOWING:

MR. M. P. JACKSON, Contractor, writes from Nattore:—"I am using the 'Eye Drops' sent a short time ago, and find it doing a great deal of good."

MR. FRANK ROSE, writes from Karwi:—"EYE-KEEP DROPS."—"An excellent remedy for weak eye-sight. My sister tried it with success. Our Dhobie had a most dreadful blood-shot eye; this medicine restored him. Please send me another phial."

MR. JOHN BAKER, writes from Vizagapatam:—"Please send me another phial of the 'Eye-Keep' Drops, as I feel my eyes getting better and the Cataract is cut off. Only the speck is on the sight: so I would be very thankful if you would send me another phial."

PREM SING, Station Master, N.-W. Ry., Saun Station *viâ* Maupband, writes:—"Kindly send me per V.-P.P. another phial of your 'Eye-Keep' Drops, early. The one tried by my old father has done him a deal of good."

MR. J. BENTON, P.W.I., Karimganj, writes:—"Please send me per V.-P.P. another two phials of the 'Eye-Keep' Drops. After using a few drops for a few days, I was surprised I could read without the aid of glasses."

WHOLESALE AND RETAIL OF THE SOLE PROPRIETORS:

LAWRENCE & LYNCH,

Manufacturing Chemists,

EMPIRE CHEMICAL WORKS, CALCUTTA.

Enormous sales for Dr. Lawrence's

ANTIBILIOUS PILLS

(Manufactured from the Original recipe of Dr. Lawrence, M.D.)

For Constipation, Sluggish Liver, *Liver Complaints, Dyspepsia*, Fevers, Impurities of the Blood, and in other Diseases where purgative medicines are required. ☞ Unlike other Cathartics they do not make you feel worse before you feel better. They are specially prepared, are free from Aloes, Mercury, or any deleterious ingredient, and are brisk and direct in operation, being unattended by disagreeable effects, *viz.*, griping, nausea, vomiting or pain. Powerful purgatives aggravate Constipation. ☞ These pills stimulate the Liver, cleanse the Bowels from all irritating substances, and restore a perfectly healthy condition. They effectually replace many other *professedly* Antibilious Pills, Vegetable and other Laxatives, which are rarely what they really profess to be. ☞ In cases of severe Cold, threatening Fever, accompanied with Headache, pains in the back and limbs, a dose of these Pills will drive away the Cold and prevent the Fever. ☞ If you have a coated tongue with a salty taste, a dose will cleanse the stomach of the foul matter which is the cause, take away the bad taste, bring back the appetite, and thus ensure a return of health. ☞ As a cure for that uneasy and disagreeable feeling "knocked down" due to late hours, these Pills, at bed-time will render you "fit" in the morning, acting thus as a "pick-me-up" by cleansing the bowels from the ill-effects of excess in eating and drinking. ☞ They are the safest and best PILLS, and with LIVER INVIGORATOR, are a certain cure for Dyspepsia (Indigestion) and Torpid Liver, both of which are the bane of Europeans and of the Natives of India. ☞ No family should be without them. In patent wooden boxes with our protecting band. Per box, Re. 1. Per Dozen, Rs. 11. *Thousands of Testimonials.*

DOSES AND DIRECTIONS FOR ADULTS.

For Indigestion; Impaired Appetite.—One Pill an hour before dinner. *For Acidity; Flatulency; Heartburn.*—One or two occasionally. *For Headache; Giddiness; Dimness of Sight*—Two at any time. *For Costiveness; Yellowness of the Skin, etc.*—One or two at bed-time twice a week. *For Intemperance in eating or drinking.*—Two or three on going to bed. *For Disordered state of the Stomach and Bowels.*—Two, as occasion may require. *For Impurities in the Blood; Cutaneous Affections, etc.*—One Pill every night.

☞ In cases of Congested Liver, Dyspepsia and Indigestion, accompanied with pains and aches in the right side, shoulders, stomach, etc., rub LINOLEUM as an external friction remedy, whilst LIVER INVIGORATOR & ANTIBILIOUS PILLS are being used. ☞ Particularly notice that the name LAWRENCE & LYNCH is on the Label, Wrapper and Protecting-band. ☞ Refuse imitations.

WHOLESALE AND RETAIL OF THE SOLE PROPRIETORS:

LAWRENCE & LYNCH

Surgeons and Medical Specialists,

3, WELLESLEY STREET, CALCUTTA.

***Telegraphic Address*:—"Indigenous, Calcutta."**

Whatever Irritates and Poisons the Blood Produces Disease and Shortens Life.

GIANT BLOOD MIXTURE

Is now acknowledged to be the GREATEST Human Sanitary Agent ever discovered in the Annals of Medicine. It cleanses the body from all humours, purifies and enriches the Blood, so that it is utterly impossible for Disease to exist where so powerful an Agent is introduced. It never fails to cure pimples on the face and hands, blotches, ulcers, discharges, glandular swellings, black-heads, eczema and every other disease resulting from blood which has become impure and poisoned from any cause.

Per bottle, Re. 1-8. Per doz., Rs. 16-8.

HE FEELS BETTER.—MR. D. C. writes from Jamalpore:—"I have just finished three bottles of your 'Giant Blood Mixture.' The pimples on my face have quite disappeared, as also the dark purple marks under the eyes. I feel better on the whole. Send me," &c.

A NATIVE of Cochin writes:—"I began to use the 'Giant' and I am extremely glad to tell you I saw good results, which now compels me to write to you for some more. The 'Giant Mixture has caught hold of the 'Devil' (S.....s) in my system and a great contest is going on, and in the contest the 'Giant' proves stronger and is gaining ground over the 'Devil.' Send me," &c.

MR. R. F. A. writes from Hong-Kong:—"In informing you regarding the medicine 'Giant Blood Mixture,' I have not the least hesitation in saying that I am now another individual. My friends can scarcely believe that a few bottles of your medicine have worked this change in me. All the symptoms seem to be quite controlled and the poison eradicated."

GIANT BLOOD MIXTURE.

"Nothing to equal it."

No, there is nothing to equal "Giant Blood Mixture" as a Depurative Agent. It is a powerful and at the same time gentle purifier of the blood, and is invaluable for the restoration of tone and strength consequent on the system becoming debilitated by impoverished and impure blood.

MR. D. R. D. writes from Cochin:—"The six bottles of 'Giant Blood Mixture' have given excellent results. Please send me by return post two dozen more. Your Antibilious Pills are invaluable. Enclose six boxes in the Parcel."

MR. W. M. writes from Lahore:—"Really there is nothing to equal your 'Giant Blood Mixture.' The dozen bottles you sent me have almost cured me. The Eruptions have almost gone and the languid tired feeling is no more. Will you very kindly send me another dozen bottles."

WHOLESALE AND RETAIL OF THE
SOLE PROPRIETORS:

LAWRENCE & LYNCH,

Manufacturing Chemists,

EMPIRE CHEMICAL WORKS, CALCUTTA.

CAUTION.—The Proprietors will take immediate legal proceedings against persons pirating their Registered Trade-Mark, "GIANT BLOOD MIXTURE," Labels, Wrappers, &c., or Advertisements, or in any way infringing their rights.

LADIES! WHY SUFFER?

When you can be immediately RELIEVED and in a short time permanently CURED by LAWRENCE and LYNCH'S

PRUNIMENVIB.

Scores and scores of females suffer in silence the maladies peculiar to their sex:—Irregularities, Obstructions; Leucorrhœa, or whites; Chlorosis, or Green sickness, disappear, as if by magic, on the administration of this invaluable specific.—The first dose gives relief. A few doses cure. Try it. ☞ Ladies! we have specially studied your diseases. We can cure you.

Price: Rs. 5-8 per bottle, 64 doses. Small size, Rs. 3, containing 32 doses. Three large bottles, Rs. 15-8. Six large bottles, Rs. 30-8. Per dozen, Rs. 60. Packing free for 3, 6, and 12 large bottles.

"QUEEN OF THE WORLD."

MOTHERS! PRUNIMENVIB can be given with safety and confidence to unmarried girls when they complain of headache, lassitude, poorness of blood, loss of appetite; scanty, irregular or delayed shows, and in cases of wasting. Even here it is "Queen of the World." Worth its weight in gold. Every dose effective. Try it. It never fails.

Thousands of Testimonials

The *Indian Lancet* says:—In disturbances of the menstrual functions Prunimenvib has gained the reputation of a standard remedy. In those forms of menstrual disorders in which there is no organic disease but a functional disturbance, its continued administration in connection with appropriate hygienic regulations, has been sufficient to produce a cure."

A lady writes:—"I have been a sufferer from acute agony for many years. Three bottles set me right."

Another lady writes:—"My life was a burden and I dreaded the approach of the usual shows. For four days I used to writhe in agony, but a few bottles of your Medicine has restored me to perfect health. Please send four more large bottles, as I do not wish to be without it."

A mother writes:—"What a boon your invaluable medicine 'Prunimenvib' has proved itself to my daughter, aged 18, who had been a martyr to periodical pains, and has been suffering from Debility for many years. It was with great reluctance I made up my mind to try your medicine, having failed with Doctor's prescriptions and every advertised remedy which was recommended. Now my child is quite well. Send me two more large bottles please."

WHOLESALE AND RETAIL OF THE
SOLE PROPRIETORS:

LAWRENCE & LYNCH,

Surgeons and Medical Specialists,

3, WELLESLEY STREET, CALCUTTA.

Telegraphic Address:—"Indigenous, Calcutta."

LISTERINE

The standard American antiseptic for internal and external use.

(Awarded Gold Medal (Highest Award) Lewis & Clark Centennial Exposition, Portland 1905; Awarded Gold Medal (Highest award) Louisiana Purchase Exposition, St. Louis, 1904; Awarded Bronze Medal (Highest Award) Exposition Universelle de 1900, Paris.)

Listerine is an efficient and very effective means of conveying to the innermost recesses and folds of the mucous membranes that mild and efficient mineral antiseptic, boracic acid, which it holds in perfect solution; and whilst there is no possibility of poisonous effect through the absorption of Listerine, its power to neutralize the products of putrefaction (thus preventing septic absorption) has been most satisfactorily determined.

LISTERINE DERMATIC SOAP

A saponaceous detergent for use in the antiseptic treatment of diseases of the skin

Listerine Dermatic Soap contains the essential antiseptic constituents of eucalyptus (1%), mentha, gaultheria and thyme each ½%), which enter into the composition of the well-known antiseptic preparation Listerine, while the quality of excellence of the soap-stock employed as the vehicle for this medication, will be readily apparent when used upon the most delicate skin, and upon the scalp. Listerine Dermatic Soap contains no animal fats, and none but the very best vegetable oils; before it is "milled" and pressed into cakes it is supper-fatted by the addition of an emollient oil, and the smooth, elastic condition of the skin secured by using Listerine Dermatic Soap is largely due to the presence of this ingredient. Unusual care is exercised in the preparation of Listerine Dermatic Soap, and as the antiseptic constituents of Listerine are added to the soap after it has received its surplus of unsaponified emollient oil, they retain their peculiar antiseptic virtues and fragrance.

A SAMPLE OF LISTERINE DERMATIC SOAP MAY BE HAD UPON APPLICATION TO THE MANUFACTURERS—

Lambert Pharmacal Co., St. Louis, U. S. A.

Hygienic Bathing.

ELLWOOD'S

SURF SEA SALT.

For Producing a Real Sea Bath at Home.

Recommended by the Highest Medical Authorities.

The Best Security for Health, Happiness, Beauty, and Long Life.

The only actual Sea-Salt in the Market.

Extracted from the Ocean.

DIRECTIONS:—One or two tablepoonfuls in the Bath.

ELLWOOD & CO., GLOBE CHEMICAL WORKS, CALCUTTA.

THE STANDARD

LIFE ASSURANCE COY.

Is the oldest established Life Office in the East. Every class of Annuity and Assurance business transacted.

FUNDS	REVENUE
£ 11,750,000	£ 1,475,000

Apply for Forms and quotations of rates to suit all contingencies to

W. E. HILL, Secretary, Standard Buildings, Calcutta.

Policies issued at English Rates.

Original Articles.

Qui docet, discit

DISORDERS OF THE RESPIRATORY ORGANS.

By JOSEPH G. LEVY, A.B., M.D.,

Since the introduction of heroin as a therapeutic agent in the disorders of the respiratory system, much has been written concerning its properties, and it is my object, in this short treatise, to place before the medical profession my experience in its use in over 600 cases.

Heroin, although a derivative of morphine, possesses marked advantages over the latter, and over other sedatives of a similar nature. Unlike morphine, its effect on the respiratory centre is stimulating rather than depressing, when given in medicinal doses. Under its influence the respirations are usually slightly slowed and deepened, and the fact that it does not stupify the patient nor produce constipation is strongly in its favor. It is without special influence on the circulation and it is a more powerful sedative than morphine or codeine, although it is distinctly less toxic than either. It can be used with perfect safety in all respiratory disorders of adults, and in over 400 cases, in many of which extra large doses were administered, I have yet to find one that showed bad effects of the drug. In children, however, the dosage must be more carefully watched, as many seem extremely sensitive to its use, but I found that even with very small doses, good results were obtained and without any after effects, and a dosage of 1/200 to 1/150 of a grain, in cases of young children, has often yielded the happiest results. Given a proper vehicle and combined with suitable expectorants, it forms a combination which I have found in both my private and hospital practice, the most reliable and efficient remedy in disorders of the respiratory organs, especially as it combats directly the cough and dyspnœa, which are as a rule the most troublesome symptoms of these disorders. In its administration I have found that glycerine, owing to its solvent and preservative properties, as well as its agreeable taste and permanent consistency, renders it the best vehicle, and that small doses as 1/20 to 1/16 of a grain repeated every two or three hours yield the best results. In bronchitis, laryngitis and asthma heroin, in proper combination, is almost a specific.

Owing to its unexampled success in the treatment of cough, I was led to try it in those diseases of children where the cough and dyspnœa are the most distressing symptoms as in pertussis. Administering it in seven cases of this disease, I met with nearly perfect success, the number of attacks being lessened and the attacks themselves being of much less severity and of shorter duration. In cases of bronchial asthma, all showed a rapid improvement; the cough, dyspnœa and all the distressing symptoms of a paroxysm soon ceasing under its use. I had occasion to try it in combination in several cases of pulmonary tuberculosis; the cough was relieved in all cases and in some ceased for months, but the happiest results were obtained in cases of hæmoptysis, especially noticeable in those which did not yield promptly to the usual remedies.

From cases treated with heroin, I select the following, comprising almost all disorders of the organs of respiration.

Before quoting these cases I would like to mention the preparation of heroin used, which has been very successful in my hands, and which I have used exclusively in all cases; viz., Glyco-Heroin (Smith). It is a glycerine solution of Heroin allowing of accurate and correct dosage, combined with expectorants and balsams, meeting all the demands of the disorders of the respiratory tract in which sedative action is required, and forming a very agreeable and palatable preparation, alike acceptable to children and those possessing a sensitive stomach.

Case 1. Thomas B. Applied for treatment December 16th, 1903. Age 29 years; printer. Three days previous had been exposed to draught, next day complained of a dryness and burning referred to the larynx, and a decided hoarseness. Cough of a noisy, harsh, irritant character was noted from the first and had increased in severity, keeping him awake at night. Expectoration was very scant, the laryngeal mucosa was of a bright red color with considerable swelling. Numerous coarse rales were heard over the base of lungs, diagnosed as catarrhal laryngitis and bronchitis. I confined him to the house, ordered

him to apply hot packs constantly to his neck, and administered a purgative dose of calomel. Then prescribed Glyco Herein (Smith) teaspoonful every hour, until three doses had been taken, and then a teaspoonful every two hours; after the second dose, felt much relief and did not cough for six hours. when he had another attack of less severity. From then on his cough stopped completely and he went on to a rapid recovery.

In the above class of cases the rapid and favorable control of the cough and dyspnœa was particularly noticeable and without any unpleasant after effects, so often noted with morphine or codeine.

Case 2. Mrs. L. R. Sent for me October 5th, 1903. Aged 47 years; married and having three children. I found ner in the midst of a paroxysm of bronchial asthma; history revealed that she had been a sufferer from this complaint for past ten years, and had been under the care of a number of physicians. Her breathing was rapid and accompanied with a loud wheezing, face flushed and bathed in perspiration, the eyes staring, the muscles of the neck prominent as they aided in the effort for air. I at once used 1/20 gr. of Heroin, hypodermically; in a few minutes the breathing was less rapid and patient feit much relieved. Then ordered Glyco-Heroin (Smith), teaspoonful every two hours. I also instructed the patient to take a teaspoonful of Glyco-Heroin (Smith) as soon as she felt the attacks coming on; from that day to this no return of the trouble has been noted.

In this case, as in all others of bronchial asthma, Heroin showed its superiority over morphine during a paroxysm, and a teaspoonful or two of Glyco-Heroin (Smith) has never yet failed to abort an attack, if taken when prodromal symptoms are noted. In no case did I note any undesirable after effects.

Case 3. Mr. A., age 38 years. Complained of cough for last two years and had tried nearly everything without result; the cough occurred at all hours but was most severely felt early in the day. Percussion, normal; auscultation reveal harsh breathing and numerous rales. Sputum and urine negative. Diagnosis: Chronic Bronchitis. Put patient on Glyco-Heroin (Smith) at once; a steady improvement was noted, the cough ceasing entirely inside of a week.

Case 4. Sarah M., age 24 years. Applied for treatment December 10th, 1903. Patient was losing weight rapidly and complained of night sweats. She had a dry, troublesome cough which prevented her sleeping during the night. Day before I saw her she had expectorated a large quantity of blood. Physical examination revealed a cavity at base of upper lobe of the left lung; sputum revealed tubercle bacilli. I prescribed creosote and also ergot for the hemorrhage; two days later I was called to the house; the cough continued and the hæmoptysis did not stop. I ordered Glyco-Heroin (Smith) teaspoonful every three hours; that night the patient slept comparatively well; she was directed to continue the Glyco-Heroin (Smith), and December 17th the patient felt much relieved, cough had ceased and sputum was free from blood. I have had occasion to use Glyco-Heroin (Smith) in other cases of pulmonary tuberculosis; nearly all showed marked amelioration of the cough, and I would warmly advocate its trial in all cases of hæmoptysis that do not yield promptly to the usual remedies.

Case 5. Amelia D., age 8 years. Had been suffering from pertussism for the last week. When I first saw her, she had been having 12 attacks a day of a very severe nature. She was ordered to take 10 drops of Glyco-Heroin (Smith) every three hours. On the third day of this treatment the attacks had been lessened to three a day and were of a less severe type. On the tenth day the cough disappeared entirely. In other cases treated by Glyco-Heroin (Smith) all but one responded as readily as the above, the attacks becoming lessened both in number and severity.

From the above cases, which are but characteristic of a great many, the following observations may be drawn: Glyco-Heroin (Smith) can be used in all disorders of the respiratory organs and is much better borne, and more efficient and safer than morphine, codeine, etc., etc. It combats the cough and dyspnœa quickly, always giving speedy relief and without any unpleasant after effects. In cases of hæmoptysis it often acts favorably where other remedies fail; it is also a valuable preparation in pertussis and other diseases of children, reducing the number of attacks and their severity; in laryngitis, bronchitis and asthma, it is almost a specific, very few cases not yielding readily to its administration. It is palatable, permits of accurate dosage and can be borne by the most deranged stomach. Therefore I would heartily recommend the use of Glyco-Heroin (Smith) in disorders of the respiratory tract, especially as a substitute for such sedatives as morphine, codeine, etc., and especially in cases where cough and dyspnœa are prominent symptoms.

THE TREATMENT OF CHRONIC VALVULAR DISEASES OF THE HEART.*

By Thomas E. Satterthwaite, M.D.

Before proceeding to the question of dietary and drugs, I will add a few words about cardiac massage. There are two kinds—one is applied to the skin over the heart, either anteriorly or posteriorly, by some one of the methods called stroking, tatooing (percussing), or the like. The other is applied directly to the organ in situ. The first method I am in favor of in suitable cases. Simple stroking of the skin over the heart, tapping it with the fingers or vibrator, either anteriorly or posteriorly, has been shown by Dr. Abrahams, of San Francisco, to actually contract the walls of the heart. But it should be done by the physician or in his presence.

The other form of cardiac massage is the surgical procedure practiced by surgeons as a means of restoring the heart's action after cardiac action has stopped, for example, after apparent death from chloroform, given as an anesthetic. It is not applicable in medical practice, involving, as it does, the use of the knife. In the very early application of it the pericardium was exposed by an anterior flap composed of the lower third of the sternum, and the cartilage and ribs from the fourth to the seventh attached to the sternum. This flap having been tilted back, the pericardium was brought into view and two fingers inserted in order to compress the organ rhythmically. In some cases an oxygenated salt solution was injected into the veins and artificial respiration was kept up. In more recent times the pericardium has been reached through an abdominal incision made longitudinally in the middle line. An opening having been made in the diaphragm the hand is passed into the pericardial sac. According to Green's† report of last year it has been successful in nine out of forty cases.

I give this description in some detail, in order to contradistinguish it from the ordinary cardiac massage—the external form—that is one of the adjuvants of the modernized Nauheim system.

In all of my cases I have been particular as to the dietary, modifying it to suit individual peculiarities. I will not give them in detail. They have been published elsewhere. In particular, I prohibit the use of tobacco, alcoholics, malt liquors and coffee. A dietary in which the carbohydrates are diminished lessens fermentation and so diminishes gaseous distension of the stomach, which is oppressive to a weak or distended heart. But as carbohydrates supply energy to the system I use them under certain restrictions. Nitrogenous food is more easily digested and (butchers' meat excepted) may be taken in moderation. A diminution in the amount of food taken daily is important. All such patients should undereat rather than overeat.

In the matter of fluids, inasmuch as the condition which has been commonly called lithemia, or whatever else we may choose to call it, is responsible for the many associated conditions in very many chronic heart lesions, water should be freely taken, to combat the so-called lithemic condition, if for no other purpose. Often, and in fact usually, especially in older people, indigestion must be met with stomachics and gastro-intestinal anti-fermentatives.

And now I come to the treatment by drugs. The limits of this paper prevent me from taking up this subject at length. I will speak of them chiefly in their application to two main conditions: (1) Heart failure, with its alarming signs that require prompt and effectual measures, and (2) heart weakness, a chronic condition that calls for no such hasty action, or careful selection of appropriate drugs or remedies. This is a distinction that I find is not sufficiently recognized; so that the remedies which are suitable for the one are given for the other. For example, the inhalation of oxygen gas and ammonium carbonate are inappropriate for simple heart weakness, but very useful in heart failure; on the other hand digitalis is worse than useless if prompt action is needed in heart failure, while it has a distinct field of usefulness in various forms of heart weakness.

As strophanthus is becoming better known and more carefully prepared, and given with proper discrimination, it is accomplishing better results. Even when given by the mouth it acts within the hour, compressing the heart rather than the arteries; while it acts on the heart more slowly than the nitrites or nitrates it is quicker than digitalis. It occupies, therefore, a middle position between them. The glucoside strophanthin is, in my experience, reliable, and in doses of 1-100—1-200 grain, soon relieves dyspnœa and pericardial distress. If using the tincture, I am in the habit of beginning with 2 to 3 minim doses, and when given by the mouth in these small doses I have never known it to produce nausea or gastro-intestinal disturbance. But we have to be on our guard about the tincture. In the British Pharmacopœia the strength is 2½ per cent., in our old Pharmacopœas it was 5 per cent., in our new Pharmacopœas it is 10 per cent; and so great has been the difference in the strength of different preparations of the seed that standard tinctures, physiologically tested, have been made. But it is claimed that such tinctures may not be stable. In this connection it is well to remember that the dose of the tinc-

* Read before the American Therapeutic Society, May 7, 1907

†Green, The Lancet, December 22, 1906.

ture by mouth which formerly was from 2 to 15 m. is now set at 8 minims.

So far as the use of the tincture hypodermically is concerned we have had conflicting and alarming statements, and for the present if used in this way, the doses should, for safety's sake, be very minute. Two minim doses of the tincture, as an ingredient of the DaCosta pill, has a well-earned reputation. His well-known prescription contains tr. of digitalis m. 2, tinc. of strophanthus m. 2, tinc. of belladona m. ½, and glyceryl nitrate gr. 1-100th—a pill often excellent for heart weakness but not for the heart failure. I avoid, however, so far as possible tincture of the strophanthus and use its glucoside.

The supra-renal capsule is being used more and more in heart diseases. It is probably the most powerful heart stimulant we have, contracting both heart and arterioles. It acts at once, but its action is so evanescent that there must be continuous dosage to keep up the rise. I have been using it chiefly under the form of the powdered gland put up in 2½ gr. capsules. As a rule, a single dose will relieve palpitation in a few minutes. Occasionally I have given it in threatened heart failure up to 12½ grs. daily, keeping up the dosage for a couple of weeks at a time.

In my experience, an adrenalin solution, given in minute doses by hypodermatic injection into a vein, is a prompt and powerful heart stimulant, acting effectually within forty seconds but I have had no extended experience with it. The dose is five minims of a 1 to 1000 solution of adrenalin chloride, containing one-half per cent. of chloretone as a preservative.

I continue to have faith in glyceryl nitrate (nitroglycerine), and use it more often than any drug in heart failure, and have found no ill effects from as much as 1-50th grain every five minutes, sometimes, in very acute cases. Used in moderate it causes a fall in arterial tension, while the strength of the heart's action is increased; and yet in large doses it will cause increased tension, as may readily be seen by the throbbing of the temporals, while the patient has a sense of disagreeable fullness in his head. For this reason the dosage should be cautiously increased in advanced arteriosclerosis; and yet a considerable amount of tolerance is established by prolonged use of the drug. Glyceryl nitrate is to be preferred for promptness of action to sodium nitrate, which, however, is not so evanescent in its action, but is apt to disturb the stomach to some extent. Glyceryl nitrate always acts promptly in angina pectoris. My confidence is undiminished in the combination of amyl nitrite and glyceryl nitrate for alarming heart failure. I still make use of the formula, found in the dispensary of a London hospital and published some years ago. It consists of amyl nitrite gr. ¼, glyceryl nitrate gr. 1-100, menthol gr. 1-60, oleoresin of capsicum gr. 1-100, and 10 minims of castor oil, put up in capsules. I keep them for use by the mouth on my office table, and in more than one instance they have saved me a catastrophe in sudden attacks of heart failure. I give a single capsule and repeat several times at intervals of 3 to 4 minutes. As the solution is not stable and is affected by the light and air, the capsules should be made fresh and kept in a closed bottle away from the light.

Camphor is a diffusible stimulant, acting in a few minutes and perfectly safe. Hypodermic doses of from half a grain to two grains dissolved in sterilised olive oil can be used with good effect in heart failure. The ordinary 20 minim dose of a solution containing 20 parts of camphor to 80 of the oil, contains four grains of camphor, but double that amount has been given with advantage, it is said. My use of camphor has been limited, however, chiefly to the monobromate in single-grain doses. It acts promptly and pleasantly. Some of my heart patients carry it constantly in their pockets.

Convallaria has had its day. It has proved to be unreliable after an extended experience with it. But spartein or its sulphate has come into favor. Though not so powerful a diuretic as digitalis, it is more prompt. I have used it satisfactorily in both heart failure and in cardiac dropsy. Useful in doses of from 1-20 to 1-4 grains, in heart weakness, it may be necessary to give one-half grain in all before the diuteric effect is obtained. But it is not cumulative and I have never seen any ill effects from it.

Caffein mildly but rapidly stimulates the circulation. Its effects are felt in a few minutes. It is therefore, adapted for cases of heart failure. It causes cardiac compression and increases arterial pressure. It is however, more useful as an adjuvant than alone. It is especially well combined with the glyceryl nitrate, where it unites the diuretic effects of the one with the vaso dilator of the other; for, theoretically at least the vaso dilator effects of the nitrate are offset by the vaso-compressor effects of the caffein. In large doses, however, caffein has been known to bring on a fatal cardiac contraction. Three-grain doses given three times a day have done so. It is also cumulative and its effects are felt for many days. Caffein should not, therefore, be long continued. I give it in half-grain doses with one grain of the nitrate of sodium, but do not continue it longer than a week. In using it, a reliable alkaloid should be obtained.

In hypodermoclysis and enteroclysis, we have other means of combating heart failure. One per cent. of a solution of

sodium chloride in sterilized water injected slowly beneath the skin where it is flabby, preferably in the ileo-lumbar region, at a rate not exceeding 2 to 4 ounces at a time until 2 to 4 pints have been used, is a remedy applicable in the heart failure of adults, and yet it is seldom used, because the process is slow; a number of punctures have to be made, and the distensions caused by such a bulk of fluid is apt to cause sloughing. About half a teaspoonful of common salt to a quart of sterilized water at a temperature of 105 F. is injected by gravity through a large syringe (Pravaz) from a receptacle held at a suitable height. Massage is used in order to have the fluid absorbed as rapidly as possible.

Good results have sometimes been obtained, it is said, simply injecting the salt solution into the bowel (enteroclysis). Crile, however, believes that this so-called normal saline solution merely acts on mechanical principles, and is only temporarily useful. I have never had occasion to use salt solution for heart failure.

Of all the drug remedies to be used for heart weakness, I put digitalis first in effectiveness, but this is far from saying that I prefer it.

There have been, and still continue to be, various misconceptions as to digitalis. For example, Alexander Morison, of England, urges the use of the tincture of digitalis in xv xx minims doses, to be taken every four hours for dilated and failing heart, supplemented, perhaps, by the tincture of strophanthus. Now the tincture of digitalis of the British Pharmacopiea is a 12½ per cent. solution; our former strength was 15 per cent.; our present strength 10 per cent., and dose xv minims. These variations should be kept constantly in mind. Again, we should have not only a phyiologically tested tincture, but it should be fresh. Digitalis may be used with these safeguards; but as soon as the action of the drug has shown itself the frequency and size of the dose should be diminished, for it is slowly absorbed, and if as fast as it is absorbed and it thus accumulates in the system. It is, therefore, cumulative, and under such circumstances it may produce serious toxic manifestations, such as convulsions and delirium, and even occasionally sudden death.

The danger of giving digitalis for heart failure has been shown by Crile, who, experimenting on animals, found that if given for shock it would, under certain circumstances, if pushed too far, actually produce heart failure.

It seems superfluous to allude to the subject of venesection, were it not that it has been recommended in a recent American text book on the Practice of Medicine, and still continues to be advocated in England. Though I have in the course of my medical practice venesected in the vertigo of plethoric people, often in orchitis, and on one occasion in cerebral congestion, I have seen no reason to try it in cardiac failure. Local derivation by dry or even by wet cups ought to suffice, in my opinion. It is quite possible, however, that in other latitudes the indications may be different. English physicians of repute advise it. Plethora is tolerably common in England, but rare here.

Of the remaining so-called cardiac drugs, I have alluded in previous papers to the use of strychnine, cactus, adonis, cretaegus, apocynum, antimony, veratrum and pulsatilla.

I have not as yet had experience with the chloride of barium. According to the reports that have been published we are not justified in using it. There is a close connection which is little referred to, between cardiac diseases and the psychoses. I have noticed the connection in the Manhattan State Hospital, where I have had some opportunities for observing them during the past few years, and this fact brings up the use of sedatives. In the restlessness and insomnia of Bright's disease, with a complication of valvular disease, paraldehyde has a field of usefulness. I give it in xx minim doses during the day, even up to 3ij at night. In well-advanced cases of valvular disease with cardiac weakness, and even dropsy, it is well borne. It may be taken in a little sweetened tea. Its effects are noticeable in fifteen minutes. In a paralytic with muscular spasms and heart weakness, I have found urethane (ethyl carbate) in xv gr. doses relieve the muscular spasms like a hypnotic, while it had no unfavorable action on the heart. Chloralamide (chloral formamide) in xv gr. doses is a good hypnotic, and acts in a similar way. Given with a little whiskey and water it acts admirably.

Trional (sulpho-ethyl-methane) is another preparation that may be given for a long time without producing any habit in these cases. Nor is its use followed by unpleasant consequences, but it should be given in moderate and intermittent doses, because its action is slightly cumulative. It is admirably adapted for the cure of opium habitues, especially for those who have acquired the habit in order to relieve angina pains. It is a sedative and hypnotic. I have not found that it has any deleterious action on the circulation, an opinion that is not generally entertained, however. I give xv grs. shortly before bedtime. Of course, if long continued it may be a poison, but the hebetude and other neurotic symptoms that then are manifested, together with hæmatoporphynuria, often occur, should warn the physician in time for him to suspend it temporarily.

Of course, very much more may be said on the use of heart drugs. In the foregoing, I have simply endeavored to give

my views on the treatment of chronic valvular diseases as briefly as the limits of the paper permitted.—THE VIRGINIA MEDICAL SEMI-MONTHLY.

INFANTILE PARALYSIS.*

BY GUTHRIE RANKIN, M.D., F.R.C.P. (EDIN) M.R.C.P. (LOND).

I have selected, as subjects for two formal lectures of this Session, Infantile Paralysis and Progressive Muscular Atrophy. The reasons which have prompted me to this choice are that the two disorders, although clinically so unlike each other, have a common pathological ancestry; that, though frequently enough met with in hospital wards, they are not so common in general practice as to make them familiar to everyone; and that both are possessed of characteristic features, which I am able to demonstrate by cases which will be brought before you in illustration of these notes.

To-day we will deal with Infantile Paralysis, otherwise known as acute anterior poliomyelitis, a disease first described by Heine in 1840, which, I need hardly remind you, is dependent upon a destructive lesion in the anterior horns of the spinal cord, and is manifested almost invariably in young children. It may occur in adults, but is most common in children under three years of age, and is especially frequently met with during the second year of life. The two cases, which are here for your inspection, illustrate this point, the illness having begun in the girl, when she was a little over a year old and in the boy, when close upon two years of age. The following short synopsis, from the hospital record of these children, will enable you to appreciate how, between them, we get illustrated the whole story of the disease, as I am about to describe it to you:—

F. H., aged 3 years, was admitted to the Royal Waterloo Hospital on account of weakness in all four limbs, especially those on the right-hand side of the body. Rather more than a year ago, after complaining for a day or two of pain in his head, he had a convulsive fit which was followed by complete paralysis of both legs and both arms. After a time, the left side become distinctly better. The family history is unimportant. He is an only child. There is no evidence of disease in any of the thoracic or abdominal organs, and the boy bears the appearance of health and intelligence. The pupils react normally to light and accommodation. Both knee-jerks are absent. There is marked wasting of the right thigh muscles, especially of the extensors. The right deltoid and the muscles of the right shoulder girdle are also atrophied, and there is partial dislocation of the head of the humerus. The right leg cannot be extended on the thigh, nor can the right arm be raised above the head. On the left side of the body, the muscular movements are normal, but very feebly performed.

L. A., aged 9 years, was admitted to the Royal Waterloo Hospital, on account of wasting and loss of power in her left leg. When rather more than a year old, this girl had some kind fo fit, for which apparently she was kept in bed, and only after five months, when she first attempted to walk, was it discovered that she had lost power in her left leg. The family history is unimportant. Nothing abnormal can be found in the chest or abdomen. The child is intelligent and fairly robust. There is wasting of the left thigh and leg, particularly below the knee, and talipes equinus is well marked. The knee-jerk is absent on the left side. The gait is much impaired. The foot and leg are continually blue and cold, and the left limb is stunted throughout, and a full inch shorter than the right leg. The irritation of dentition is frequently assumed to be responsible for the onset of the disease, but there is no proof in support of the assumption. Exposure to cold was for a long time blamed for this, in common with many other disorders, but the fact that its incidence is greater in hot than in cold weather makes the theory unlikely. Parents, who are always anxious to find an extraneous cause for any form of paralysis, commonly ascribe the onset to a fall, or to an injury to the spine. The disease is sometimes met with in such a multiplicity of cases occurring together, that it almost assumes a character of epidemicity. Thus, in 1889, Medin reported an epidemic in Stockholm, in which 44 cases occurred during August, September, and October; in 1895, Caverley described an outbreak in Rutland, U.S.A., in which 144 cases declared themselves between July and September; and numerous similar experiences have been recorded in London, New York, and elsewhere. This occasional epidemic prevalence, the seasonal preference, and many other facts support the view that, probably, the cause is a toxæmia rather than a localised inflammation, and that a micro-organism, yet to be isolated, or its toxins, possesses a spinal affinity for the cells of the anterior horns which, under favourable conditions, it assails and more or less destroys. The onset of infantile paralysis is always sudden, but is occasionally preceded, for a day or two, by fretfulness or general malaise. It is attended by a rapid rise of temperature to 102° or more, quick pulse, flushed face, restlessness, and not infrequently by vomiting, or diarrhœa. In a small proportion of cases, there is no febrile onset, the child, while in a state of perfect health, being suddenly paralysed in one or more limbs. Sometimes the illness is ushered in by convulsions. The two children before us are examples of this type of onset. The

* A lecture delivered in the London School of Clinical Medicine (Post-graduate). Seamen's Hospital, Greenwich.

initial symptoms are usually ascribed to a feverish cold, but, after they have lasted for from a few hours to a day or two, it is discovered that the child has developed a paralysis affecting one, two, or even all four limbs. A much longer period sometimes elapses before the loss of power is observed. This little girl is a case in point. Her mother did not become aware that she had lost the use of her left leg until four months after her initial "fit." The child was in bed all the time, and only when she first attempted to walk was the fact of her paralysis first realised. Among careless parents such an oversight is not so rare as might be expected. In children old enough to describe their symptoms, pains in the limbs, a dull aching in the back, and headache may precede or accompany the paralysis. Sensation remains otherwise unimpaired. In cases in which distinctive sensory phenomena are present the chances of the case turning out to be one of peripheral neuritis rather than one of infantile paralysis must not be overlooked. The bladder and rectum retain their normal functions; any serious interference with one or the other should suggest the possibility of the underlying pathological change being of the nature of a true myelitis. The palsy varies in extent, but it is complete from the first sudden onset, and never spreads beyond its original distribution. The lower limbs are more frequently paralysed than the upper ones. In a majority of instances, one limb only is affected, but both legs may be involved, more rarely both arms, more rarely still all four extremities. This small boy is one of the rare examples of the disease, when both the lumbar and cervical enlargements of the cord are attacked and in which all four limbs are involved in the initial paralysis. When both legs are paralysed, one is usually more affected than the other, and the ultimate permanent disability is often entirely limited to the limb, which was originally most seriously implicated. In the case of the leg, the muscles below the knee suffer more frequently than those above it. As regards the arm, the intrinsic muscles of the hand may bear the brunt of the disease, but the deltoid suffers more frequently than any other single muscle. These points are strikingly illustrated in our little patients. Rare cases have been recorded, in which some of the thoracic, abdominal, or facial muscles have been invaded by the paralysis. All the muscles of the affected limb are not, as a rule, equally incapacitated, and even those muscles which are involved are not necessarily wholly so; some of the fibres may escape, and continue capable of normal activity. If a cluster of anterior-horn cells, serving a group of muscles, is entirely destroyed by the morbid process, it necessarily means total permanent paralysis of the associated muscles, but if the group of cells is but partially affected, the correlated muscles will be proportionately disabled, but not wholly unfitted for work. The more complete the destruction of the multipolar cells, the more incurable will be the resulting paralysis. Similarly, the more extensive the lesion in the anterior horns, the more widespread must be the resulting muscular palsy. After having attained its maximum intensity, which, as already stated, it does rapidly, the paralysis remains stationary for a period varying from a few days to as many weeks. It then gradually lessens, and progressive improvement takes place in such of the muscles as are innervated from segments of the spinal cord, which have escaped the destructive incidence of the disease. In other words, recovery takes place from that portion of the initial paralysis, which is dependent upon shock, while the remaining portion, which results from destruction of anterior horn cells, is permanent and incurable. In every case there is a regression from the original area of the paralysis, but there is no means of estimating any proportion between the initial and the later or permanent disability. Improvement is first declared in the muscles last affected, and recovery becomes complete in from one to three months where the neurons remain intact. When the deprivation of nerve-supply is permanent from destruction of the trophic centres, the muscles remain flaccid and immobile. In from 10 to 14 days, after the onset of the attack, they already show signs of atrophy, and give to electricity the usual reactions characteristic of degeneration. In many instances, this reaction of degeneration, which consists, as you will remember, in a diminution or loss of Faradic response, with an increased but sluggish Galvanic response accompanied by polar changes, can be demonstrated, before atrophy has become a notable feature of the condition; and, occasionally, when the attack is severe the diminution of Faradic irritability is distinct as early as the end of the first week. After about six months, the affected muscles are permanently paralysed, and yield no response to either form of electrical stimulation. The wasting has become a prominent feature and, if a whole limb is involved, it hangs useless, shrunken, and is no better than a flail. After a further interval of time, it becomes rigid and deformed from fibrous contraction, and from the unopposed action of the remaining healthy muscles. Care must always be taken to differentiate between this late rigidity and the spastic paralysis dependent upon a lateral sclerosis; the latter is always accompanied by increase of the reflexes, and is not associated with muscular wasting. The lesion of infantile paralysis being situated in the trophic centres of the lower segment of the motor tract, the reflexes are abolished in all situations, in which the innervation is derived from the seat of lesion in the anterior horns. Thus, if the lumbar enlargement is involved, the reflexes of the lower extremities will be interrupted; whereas if the cervical enlargement has fallen a victim to the disease,

the reflexes of the arms will be lost, while those of the legs remain intact.

After the disease is permanently established, the development of the affected limb becomes arrested; the younger, therefore, the patient, the greater will be the ultimate disproportion in length and girth between the sound and diseased limbs. In this girl, the affected leg is not only visibly thinner than its neighbour, but it is quite an inch shorter. There may also be luxation of one or more joints from loss of their muscular and tendonous support, as is very well portrayed in the boy's left ankle and shoulder. The circulation through the limb is feeble, which, in consequence, looks blue and feels cold. From slight irritation, the skin is liable to become the seat of indolent sores. In all cases there is a partial recovery of power, but complete restoration is unknown. Second attacks of the disease are almost unknown.

Laborde has divided the history of the disease into the following four stages, which are useful to remember:—

1. An initial stage of rapidly increasing paralysis, usually accompanied by pyrexia, and lasting from a few hours to a week.

2. A stationary stage, lasting from a week to a month.

3. A regressive stage, during which the paralysis passes away from all parts except those whose trophic centres are destroyed, lasting from one to six months.

4. A chronic stage, during which atrophy persists, and contractions or deformities may be developed.

When adults are attacked, a comparatively rare event, the sequence of symptoms is precisely the same as in children Obviously, in them, there can be no arrest in the growth of tissues that have reached their full development.

The most important complications are the various deformities which may ensue in the paralysed limbs: the legs suffer much more frequently than the arms. Statistics seem to indicate that other forms of spinal cord disease—progressive muscular atrophy, lateral sclerosis, etc.—are more liable to develop in spinal cords, whose stability has been previously disturbed by an attack of anterior poliomyelitis, than in those which have been always normal.

As regards pathology, the disease is so seldom fatal that opportunities for post-mortem examination are rare. The lesion in the anterior horns is vascular in character, and, in the acute stage the appearances are those of an ordinary myelitis limited to the anterior-horn region of the cord. The primary or exciting cause of the disorder is not yet ascertained, but there is strong reason to suppose that some form of toxic irritant in the blood is the responsible agent, though why the process should always manifest itself through the spinal artery supplying to the anterior horn, has not yet been explained. When a cord is examined, years after the occurrence of the disease, the cornua at the affected area are found shrunken, and the motor nerve-cells partially or entirely absent; the affected half of the cord is visibly smaller than the corresponding part on the sound side, the extent of shrinkage being proportionate to the severity of the attack. In the muscles, which are involved in the paralysis, the affected fibres are atrophied, and in a condition of granular degeneration. The interstitial connective tissue elements are increased, and, in extreme cases, the muscular fibres have disappeared entirely, and become replaced by tracts of fibrous tissue with intervening accumulations of fat. The lumbar and cervical enlargements of the cord are the most common seats of the disease, which is, in many instances, entirely limited to one or other of these situations.

Byrom Bramwell thus sums up what he regards as essential pathological facts:—

1. The lesion is an acute inflammation of the anterior horn of grey matter.

2. In most cases the inflammation is practically confined to this part of the cord.

3. It chiefly or exclusively involves the grey matter of the lumbar and cervical enlargements, all the segments of which may be, but more frequently some only are, implicated, usually bilaterally, but seldom symmetrically.

4. The lumbar enlargement is much more frequently affected than the cervical.

5. The severity of the inflammation is variable, being sometimes so slight that the chief result is an inflammatory œdema, at others so severe that there is more or less complete destruction of the multipolar cells.

6. The effect of the inflammation is to temporarily arrest, or permanently destroy, the function of the active nerve elements, with a resulting temporary or permanent paralysis of the muscular fibres which they supply.

7. A nerve cell, once completely destroyed, is never restored.

8. The result of destruction of a nerve cell in the anterior horn is degeneration and atrophy of its axis-cylinder process of the motor nerve-endings, in which it terminates, and of the muscular fibres, with which these motor nerve-endings are connected.

The outlook as regards life in infantile paralysis, is almost invariably favourable, but no opinion can be formulated as to the possible degree of recovery from the damage inflicted by the attack until the first severity of the seizure is over, though a certain amount of recovery from the initial paralysis is always to be looked for. When the paralysis has reached its acme, and has remained stationary for 24 hours or more, no further extension need be apprehended, while the risk of the relapse or recurrence may be disregarded. Complete recovery is extremely rare. The earlier and the more pronounced the loss of normal electrical irritability is, the greater and more rapid will be the wasting, and the more unfavourable will be prognosis as regards ultimate recovery of power. Muscles, which respond to the Faradic current a month after the onset of the disease, will probably recover, while those that fail to respond will remain permanently more or less impaired. The disease does not in any way interfere with the normal development of the brain or other organs, but the parents should always be warned that the affected limb is certain to be stunted in its growth. The prognosis is more unfavourable in febrile cases than in these without an initial temperature disturbance.

In the diagnosis of the disease, it is a common mistake to ascribe the illness, in its initial phases, to chill, dentition, or the onset of one of the specific fevers. Later on such an error is rectified by the discovery of a flaccid paralysis affected one or more limbs; and, at a still later stage, corroboration is afforded by muscular atrophy, loss of reflexes, and altered electrical reactions. When an old-standing case is seen for the first time, the true explanation of the paralysis and atrophy must be sought in the history of the mode of onset of the attack, and in the fact that the paralysis has not been progressive, but has remained wholly limited to the muscles which were suddenly rendered powerless when the disease first manifested itself as a pyrexial and acute malady. An arrest in development of the affected limb causing it to be, in all its structures, smaller than its neighbour, and also lividity and frigidity of its surface are minor points of confirmatory significance. Further differential characteristics are to be sought for in the absence of permanent sensory disturbances and of bladder or rectal troubles; also in the liability to progressive contractions in the affected limbs.

Infantile paralysis may be confounded with acute transverse myelitis, cortical disease of the brain, peripheral neutritis, or the pseudo-paresis or rickets; but difficulties in diagnosis are in the large majority of instances, few, and, with reasonable care, mistakes are easily avoided.

In the treatment of the disease, the patient should be confined to bed during the acute stage. So far as possible, the dorsal decubitus should be avoided, and the application of sinapisms, or dry cupping to the spine, may be of some value in limiting the extent of the inflammatory disturbance, if they are applied before damage has actually been inflicted upon the anterior horn cells. The diet should be bland and simple, and food is best given in small quantities, and at short intervals. The bowels must be evacuated by a brisk aperient, and the administration of a simple diuretic and diaphoretic mixture will promote the subsidence of the temperature. In many cases there is so much restlessness that bromides are required, which may be conveniently added to the febrifuge mixture. When the stationary stage is reached, tonics are generally indicated, and none will be found better, in the case of most children, than a combination of the syrups of the iodide and phosphate of iron, to which after three or four weeks, it is frequently advisable to add strychnine, or nux vomica. The daily dietary should by so arranged as to supply the maximum of fatty nourishment that the child's digestion can deal with, and cod-liver oil should never be omitted.

For the first three or four weeks, the child should be kept as much as possible in the recumbent position, either in bed or on the sofa, but when all activity at the site of lesion is presumably over, it is desirable to have him out of doors, as much as the conditions of weather and the state of his general health will allow. Although of paramount importance, nothing in the way of local treatment should be attempted, until about a month has elapsed from the onset of the illness. It is then time enough to subject the affected limbs to the influence of massage, the continuous electric current and passive movements, all of which help to maintain the nutrition of the damaged muscles, and to stimulate conductivity in such nerve fibres as are not permanently destroyed. Active treatment should be persevered with for about eighteen months; by that time all the recovery that is possible is likely to have been achieved. Subsequently management should be directed to the maintenance of the general vigour, and to the prevention of deformities. If the latter cannot be completely prevented, at least much may be done to minimise the inconvenience they produce, by looking after the position of the paralysed limb, and by calling in the services of the orthopædic surgeon on the first indication of muscular contraction, so that suitable mechanical appliances may be requisitioned at the time when they are of the greatest service. Within the past few years, encouraging results have been achieved by the transplantation of tendons from healthy to paralysed muscles.

In the large majority of cases, the disease is established, and the damage done before advise is sought, but, even were it otherwise, nothing in the way of prophylaxis is possible in the present state of our knowledge. If, at some future time, the ætiological factor is proved to be bacterial, then we shall be within reach of some means of protection which will bring the incidence of the disease within the scope of preventive medicine.—THE PRACTITIONER.

PRACTICAL EXPERIENCES WITH CELLOTROPIN.

BY DR. J. WEISS, VIENNA.

In spite of the fact that, as a rule, therapeutic treatment of tuberculosis is considered useless, owing to the success of sanatoria treatment and bacteriological therapy, medical practitioners are still as keen as ever to obtain a remedy which given per os, will favourably influence the disease, improve the general condition, and stop the local process. Cellotropin has been recommended as such a remedy. I have tested it for more than twelve months, and now report the results of my experience. As Dr. Aufrecht's experiments with Cellotropin are not generally known, I will briefly repeat them, without referring to any particular dates, &c.

These experiments showed that by the use of Cellotropin no disturbances in the functions of metabolism or toxic effects on the organs were produced. It was noticed also that by sufficiently large doses Cellotropin absolutely prevented the formation of tuberculous infection—in guinea-pigs this dose seems to be 1 grm. to 1½ grms. per day. Dr. Aufrecht in many instances chose large doses in order to show that even infected animals can stand comparatively large quantities of the preparation without showing any by-effects. A number of other experiments to indicate whether Cellotropin would render animals immune against posterior infection were made, but they failed, which is quite in keeping with the theory that the protective bodies are only formed where bacilli already exist.

Dr. Vilmar, who first produced the product, started with the idea that in each infectious disease the antibodies are formed by the enzymes of the glandular fluid through the influence of the intruding pathogenic germs. His desire was to increase the enzymes of the glands, hoping that the protective bodies, which are created under the influence of tubercle bacilli, would likewise considerably increase and obtain such strength as to be able to successfully combat the infection.

The remedy had, therefore, to be such as to increase the protective bodies without being irritative or toxic, or producing even during prolonged treatment any unpleasant or harmful by-effects. The product constructed on this basis is monobenzoyl-arbutin=Cellotropin, a white crystalline powder, without taste or smell. It is difficult to dissolve in water, but is easily soluble in alcohol. It enters the blood and lymphatic circulation almost undisturbed, as it is not decomposed by the mucous or stomach fluid. The preparation is only broken up in the glands, and these are the organs which bring about the above-mentioned effect.

Without further reference to the other literature published, I started my experiments, as I wished to collect my own experiences in different cases. The following cases I have had under treatment:—

Case I.—H. N., twenty-eight years of age, civil servant. Healthy history. Conjunctivitis of the left eye, scrofulous glandular swellings; on the points of both lungs slight catarrhal process, which in conjunction with the glandular swellings and the eye disease seemed to indicate tuberculosis. The patient sometimes suffered from cough and loss of appetite. The scanty expectoration, when examined microscopically, showed a small number of tubercle bacilli. Aug. 15th.—The cough simulated whooping attacks. Slight increase in temperature in the evening, night-sweats. The patient took from this day forward 7½ grs. of Cellotropin every three hours, i.e., 37½ to 45 grs. per day. Aug. 22nd.—The cough had greatly diminished and the appetite improved; the conjunctivitis had been healed by dusting with calomel. The weight (123 pounds) had not altered; the increase in temperature in the evening and night-sweats still remained. The dose of Cellotropin was continued for a further twenty days. Sept. 20th.—Appetite very good, weight increased by three pounds; the glands of the neck decidedly smaller; fever and night sweats disappeared. Favourable effect could be noticed in the objective symptoms of the two lung points. Only very few bacilli could be observed by microscope examination. Oct 4th.—The patient was dismissed as cured, his weight being 142 pounds. The general feeling was most satisfactory. Bacilli could not be observed by microscopic examination, but left lung point still showed a somewhat sharp expirium. During this time the patient received 45 grs per day of Cellotropin without any unpleasant by or after effects. He was recommended to continue the treatment.

Case II.—J. S., thirty-three years of age, solicitor, came to me on Aug. 10th, complaining of pains in the right side of the chest and severe cough, which prevented him sleeping at nights. The examination showed a decided infiltration of the right lung up to the spina scapulæ at the back, and in front rattling sounds could be noticed, though not very frequent.

Loss of appetite and weight, and night sweats. Evening temperature 38·5° C. The case was clearly one of advanced tuberculosis, and this diagnosis was confirmed by finding bacilli in the sputum. The patient received daily six powders of 7½ grs. each Cellotropin for fourteen days. Even after such a short time the favourable influence of the drug could be noticed. The coughing decreased, and sleep was decidedly better; the pains and loss of appetite were still present. Objectively no alteration set in. Sept. 16th.—For a few days the patient was afebrile. The night-sweats ceased altogether, appetite improved, cough disappeared, and weight increased by three and a half pounds. From the objective point a decided improvement was also noticed, as the moist rales were considerably less frequent and gave place to dry rales. Bacilli were still present, but in smaller numbers. The dose had been increased to 60 grs. per day, which he could stand equally well as the smaller dose (45 grs). He soon became almost well, and could follow his profession without any trouble.

Case III.—A tailor, twenty-nine years of age. Healthy family and personal history. No previous illness except pleuritis of the left lung this summer, which left a painful cough. He went into the country for five weeks, but without any effect July 21st.—Patient looked somewhat run down, and was delicately built. Examination of the lungs showed a few dry rales in the right lung point. No trace of pleuritis noticed; no change of temperature. When taking full breath inclination to cough, which often became very painful and acute. The appetite had lessened considerably lately. Expectoration very little, which, however, under the microscope showed a few tubercle bacilli. Hence the diagnosis was clear and the reason of the cough explained. Consequently the cause of the pleuritis was also clear. The case was one of commencing infiltration of the lung point, a case which, when treated early enough, would terminate in absolule cure. The patient received at once 60 grs. Cellotropin per day, and the result was absolutely successful. An examination took place after two weeks' treatment, and to our great surprise did not show any pathological symptoms of the right lung. The cough was still there, but had greatly diminished. The sputum, which was so scanty as to be almost impossible to obtain, showed no bacilli. A further examination made on Sept. 20th indicated that all symptoms of a subjective and objective kind had disappeared. The patient, whose weight had increased during the four weeks by three and a half pounds, was dismissed as cured.

Case IV.—A girl, twelve years of age, who for some time looked pale. She had no appetite and consequently lost weight. Cough, with scanty expectoration. An examination of the blood showed secondary anæmia, with disease of both lung points, which, together with the other symptoms, might be considered as of tubercular origin. I could not obtain microscopic proof, as no sputum was to be had. The little patient received at first two powders of 7½ grs. each per day and plenty of milk. The treatment commenced on Aug. 1st, and on Aug. 16th the condition was changed in so far as the cough had entirely disappeared and the appetite improved. Objectively the case was almost unchanged, but the previously frequent rales became fewer, and the body weight increased by three-quarters of a pound. As the two powders per day did not cause the slightest indisposition, I increased the dose to three powders, and the large dose was well borne. Sept. 20th. Absolute cure. The condition of the lungs was perfect, and the anæmia gone. The blood and the general appearance were normal. The patient took Cellotropin for a further fourteen days. Her weight had increased seven pounds during the treatment.

Case V.—A case of severe lung infection, which was too far advanced for any method of treatment to have a decided effect or prevent the final exitus. The palliative influence of Cellotropin induces me to notify this case; it also proved symptomatically a most efficacious remedy. B. G., twenty-nine years of age, teacher, with severe tuberculosis of both lungs. Cavitation at top of right lung; copious expectoration, containing a large number of tubercle bacilli. The patient who was much run down and thin, suffered mostly from a very severe cough, which prevented sleep at night, and which also took away her appetite. In spite of narcotics, the condition did not improve. By giving eight powders of 7½ grs each of Cellotropin per day the cough and expectoration were reduced so that the patient had at least a little rest during her last few weeks

Case VI.—C. H., twenty-one years of age- typist Mother and brother died of tuberculosis. The patient commenced treatment Aug. 28th. She was thin, very weak and pale, with complete anorexia. Slight panniculus adiposus. Severe anæmia. Heart murmur. Rough vascular breathing, with moist and dry rales. Dietetic and hygienic methods were employed, together with four powders of Cellotropin, each 7½ grs., per day, which dose was shortly after increased to six powders per day. Sept. 18th.—The condition was most satisfactory; she looked better and was in good spirits. The feeling of the general weakness had almost gone, and the appetite had returned and improved gradually. Objectively the pulmonary sound was scarcely observable, although the breathing organs were far from normal. Oct. 15th.—The patient had been taking Cellotropin, and was in good spirits; looked well and had increased in weight since the commencement of the treat-

ment. Objectively the examination of the lung points showed normal breathing without rattling sounds; the cardiac murmur had also disappeared.

Case VII.—This case was a female patient with emphysema of the lungs and chronic bronchitis. In consequence of the latter disease, a pernicious cough, together with the emphysema set up asthmatic attacks, and often disturbed the patient's sleep. After six powders of Cellotropin, each 7½ grs., the cough and difficulty in breathing decreased. Eight powders per day were taken without any disagreeable by-effects. This case is not in the same category as the other cases I have described, as tuberculosis was not present. But as I had noticed in Case 5 a decided symptomatic improvement after the use of Cellotropin, I decided in the present case of chronic bronchitis to employ the drug. I am pleased to say that the result satisfied my expectations, and I strongly recommend Cellotropin in similar instances.

I give the above seven cases out of the fourteen treated. I selected the cases that were not already too far advanced to observe the value of the remedy. I believe that five cases described and seven not mentioned in detail were suffering from real tubercular disease, and I can corroborate the opinion of Dr. Kapp, Berlin. viz, that Cellotropin in something absolutely new, and means a decided advance in the theoretical aspect of phthisis.

In all instances I noticed at the commencement of the treatment with Cellotropin a decided decrease in the specific symptoms. In such cases where sputum was obtainable I found first a large number of tubercle bacilli, which after a few weeks treatment were greatly reduced. In slight cases the bacilli had entirely disappeared, whilst in the severe cases their number greatly diminish, and by continuous treatment for eight to ten weeks they absolutely disappeared, and never returned. I firmly believe that this was entirely effected by Cellotropin. The temperature reached normal on the third or fourth day in the less severe cases, which again proves to me the specific effect of Cellotropin, the more so as it is not an antipyretic agent. In advanced disease, with virulent bacteria, Cellotropin did great service in arresting bacterial development. As a consequence, the other symptoms, night-sweats, cough and expectoration, were greatly reduced and often stopped altogether, while the appetite rapidly increased.

We notice that Cellotropin does not act, like creosote and its preparations, in influencing any one symptom, but all the symptoms commence to improve slowly, and often finally disappear. In these circumstances it seems that the medical profession should give Cellotropin careful attention.—THE THERAPIST.

PRINCIPLES OF SURGERY.

BY STUART McGUIRE, M. D.

Tuberculosis of bone is very common, especially in children and young adults. It usually attacks the epiphyseal extremity of long bones, although it is sometimes seen in the vertebra, carpus, tarsus, scapula, and ilium.

Pathology.—The infection may be conveyed to the bone by a single organism floating in the blood or by an embolus from a disintegrating tubercular gland. Localization usually takes place in the neighborhood of the epiphyseal line, which has already been spoken of as the zone of pathologic election, being specially susceptible to disease owing to the imperfect development of the growing cells and the tortuous condition of the blood vessels. The embolus usually lodges in a terminal vessel and as a result, a triangular area of bone is rendered ischemic. Tubercular inflammation follows with death of bone and the formation of a sequestrum.

Practical surgeons have frequently noted the fact that tubercular sequestra are nearly always wedge-shaped. Konig, before experimental research confirmed him, assigned as the reason for this peculiar and constant shape of necrosed bone, the occlusion of a small artery by a tubercular embolus, and Muller confirmed the clinical findings and pathological reasoning by injecting tubercular pus directly into the nutrient artery of bone and upon subsequently killing the animal, demonstrating that the disease was found localized in triangular areas at the articular ends of bone.

After causing death of bone, the bacillus of tuberculosis and its toxins, by some peculiar property inherent in them, bring about decalcification, which removes the lime salts and leaves merely a shell-like fragment. This causes the characteristic worm-eaten or honey-comb appearance of the sequestrum of tubercular bone, and to this process is given the technical name of osteoporosis. Opposing this destructive process of disease is a conservation process of nature consisting in a condensation and hardening of the bone around the area of infection, so that it becomes dense, and non-absorbent, and by it the infection is shut in by a more or less impenetrable wall, and to this process is given the name of osteosclerosis.

Causes.—The essential cause of the disease is of course, the bacillus of tuberculosis. This has been demonstrated by

the constant association of the germ with the disease and by the ability of experimenters to artificially produce the disease by inoculation.

The predisposing causes are traumatism and age, both giving rise to conditions favoring the localization and development of the disease. Almost without exception the mother will date the origin of tubercular trouble in a child to a fall or blow. Volkmann says it is characteristic for the traumatism to have been a slight one. It is fact that, even in a tubercular subject, the disease does not follow a severe injury such as a fracture. The explanation of this is that after a slight trauma, the injury is so insignificant that nature does not repair it, while after a severe trauma there is such active cell proliferation to repair the gross damage, that germs, even if present, are unable to effect localization.

Age is another predisposing cause of the disease, inasmuch as in childhood and adolescence bone is rapidly growing and the embryonal cells, with their peculiar vascular supply, present much less resistance to infection than do the bones of an adult after complete ossification takes place.

Symptoms.—There is usually a slight rise of evening temperature and a slow, progressive anemia. It is on the local symptoms that a diagnosis must be based, and they are as follows:

1. Pain This is a constant symptom. It is usually described as dull, boring or gnawing in character, its severity depending on the acuteness of the disease. It is markedly increased by passive manipulation or exercise, and diminished by physiological rest of the part. Nocturnal exacerbation is characteristic. The child may not complain of pain while awake, but after going to sleep he will be restless, cry out, grind his teeth and otherwise show his suffering. The pain is not always referred to the seat of tubercular inflammation, as, for example, in tubercular caries of the spine, the pain is in the abdomen, and in tuberculosis of the hip, at the inner side of the knee.

2. Tenderness. This is perhaps the most reliable symptom, as it localizes the seat of the disease, determines with some accuracy the number of foci, and shows the area of tissue involved. As stated, the disease usually begins near the extremity of long bones, and the child usually complains of pain in the adjacent joint. Careful palpation and the determination of the point of the greatest tenderness will determine whether the case is one of the tubercular osteomyelitis or synovitis.

3. Swelling. This is absent in the early stages of the disease just as it is in suppurative osteomyelitis. Swelling does not occur until the inflammatory process penetrates the cortex of the bone and involves the overlying soft structures The surgeon who does not make a diagnosis and apply his treatment until swelling appears loses the golden opportunity to arrest the disease before extensive destruction ensues.

4. Redness. This, too, for the same reasons, is lacking in the early stages and has only a negative diagnostic value. If develops shortly after swelling appears, the skin becoming discolored, thinned and finally perforated, allowing the escape of tubercular pus.

5. Atrophy of the Part. This is characteristic and dependent partly on lack of use, but more upon some obscure interference with the function of the trophic nerves of the part.

Diagnosis.—This is based upon the age, history and local symptoms, and, in doubtful cases, may be confirmed by a method which has received the formidable name of akidopeurastik, a tongue-twister applied by its German originator, to mean the peaforation of the bone cavity with a hollow needle and the aspiration and examination of the material it contains.

Treatment.—1. Physiological Rest. The importance of rest to the inflamed part cannot be overestimated, and no matter what other treatment is applied, the part affected should be immobilized and relieved as far as possible of its physiological duty.

2. Igni-puncture. If the focus can be accurately located early in the disease, puncture with the actual cautery heated to a cherry-red heat is very efficacious. It destroys the organism, rouses the resisting forces of nature to activity, and the opening serves as a drainage tract, relieving tension and allowing escape of retained fluids.

3. Iodoformization. Iodoform has an inhibitory effect upon tubercular disease; hence if the focus is accessible, it should be injected with a 10 per cent. emulsion of iodoform in glycerine, and the treatment repeated if improvement follows.

4. Radical Operations. If rest, igni-puncture and the use of iodoform prove inefficient or are not considered adequate to meet conditions, then more heroic methods must be applied. The part should be rendered bloodless with an Esmarch's bandage, the soft overlying structures incised and the bone exposed. With chisel and mallet the tubercular cavity should be opened by cutting away the hardened bone encasing it, and the sequestrum removed. In advanced cases it may be necessary to excise the entire shaft of the bone or to amputate the limb.

TUBERCULOSIS OF JOINTS.

Tuberculosis of joints, tubercular arthritis, white swelling, chronic fungus arthritis, and scrofulous joints are synonomous terms applied to tubercular inflammation of a joint. The hip, knee, vertebral, ankle, elbow, shoulder and wrist joints are the ones most frequently diseased. Infection may occur in two ways: first, by extension of inflammation from neighboring bone into the joint, giving rise to what is known as "primary osteal" tubercular arthritis; second, by the localization of a blood bone organism in the synovial membrane of the joint, thus producing what is termed "primary synovial" tuberculosis of the joint. The primary osteal form of the disease occurs two or three times as frequently as the primary synovial form, but the distinction between the two, while theoretically of interest, is of practically little moment as disease of one structure always, sooner or later, extends to the other.

Pathology.—The bacillus of tuberculosis having reached the synovial membrane either through the circulation or by extension from a primary focus in the articular end of a bone, is soon widely disseminated over the entire surface of the joint by means of the synovial fluid. As a result there is development of a chronic inflammation which, unless arrested, involves every structure of the part, and finally bursts through the capsule of the joint to continue its ravages in the periarticular tissues. The inflammatory product may take on one of two forms: (1) There may be very little transudate but a great deal of exudate. As a consequence there is little or no fluid in the cavity, but the synovial membrane is much thickened and becomes soft and pulpy. This is the fungus arthritis or tumor albus of the old writers. (2) There may be but little exudate but a great deal of transudate, and the synovial sac is filled with a large amount of fluid containing rice-like bodies, giving rise to the so-called dropsical form of the disease.

Causes.—The essential cause is, of course, the bacillus of tuberculosis. As predisposing causes, traumatism is the most important. A careful study of a large number of cases has shown that 56 per cent. of them can be traced to some injury, such as a blow, twist or over-strain of the joint. The traumatisms are usually slight, for the same reasons as those given in the section on the etiology of tuberculosis in bone. One-half of all cases occur before the twentieth year, due to the frequency of tuberculosis of bone in children, and this despite the fact that tuberculosis of the wrist and of the shoulder are rarely seen except in the adult.

Symptoms.—The patient may exhibit a slight rise of evening temperature, followed later by sweating, pallor and emaciation, but often there is no depreciation of the general health, and a diagnosis must be based entirely upon the changes in the joint itself. The local symptoms are very distinctive and consist in

1st. Swelling. This is so characteristic that the disease is often spoken of as "white swelling." The joint is not only enlarged by the hydrops or the excessive granulations, but the muscles of the limb above and below the joint are atrophied by disuse and tropho-neurosis to such an extent as to make the joint appear larger than it really is. Upon examination the bony landmarks will be found obscured or lost and fluctuation can be obtained. In the dropsical form the swelling is due to the presence of fluid; in the fungus variety it is caused by the thickening of the capsule from the exuberant granulations. These new cells are so soft that there is apparent fluctuation in the fungus form as well as in the dropsical, and it is often necessary to use the aspirator to determine whether the swelling is due to fluid or solid material. When the tubercular disease has extended through the capsule into the periarticular tissue, the swelling becomes even greater and the joint assumes a spindle shape. As the inflammation approaches the surface and the subcutaneous tissues are involved, the skin becomes white, dense and immovable, and then it is that we have the typical "white swelling."

2nd. Pain. This is rarely marked in degree. It is subject to nocturnal exacerbation. The fungus form of the disease gives less pain than the dropsical, as the granulations are insensitive and protect the surfaces they cover. Primary synovial tuberculosis is often unattended by pain until the process extends through the cartilage to the bone, while on the other hand, the osteal form is attended by pain from the beginning, no increase being noted when the joint is invaded.

3rd. Deformity. This is greater in the fungous than in the dropsical form. The joint is usually flexed because, first, this position increases the capacity of the capsule and lessens pain; and second, the muscles involuntarily contract to prevent motion, and the flexors being stronger than the extensors, flexion is the resultant of the two forces. Pathological dislocation is often seen in the late stages, due to destruction of essential parts of the joint, allowing change in the normal relation of the bones which compose it. Ankylosis is also sometimes observed, due to repairative change inaugurated by nature after the destructive process has run its course.

Diagnosis.—This is usually easy and is based on the age of the individual, the characteristic deformity, and the presence of pathognomic symptoms peculiar to the disease when it attacks individual joints.

Treatment,—1st. Physiological Rest. This is the most important indication to be met, and if properly applied in the early stages will cure 95 per cent. of all cases. It is carried out by means of confinement to bed, fixation by mechanical appliances, and the use of extension in order to avoid friction between the opposed surfaces of the joint. During the acute stages of hip-joint disease, the child should be put to bed, the limb immobilized by a plaster of Paris dressing, and Buck's extension applied with enough weight to overcome muscular contraction and to prevent the head of the femur grinding in the acetabular cavity. When the acute symptoms subside it is advisable to allow the child to leave the bed and get exercise in the open air, but immobilization and extension must be continued by means of suitable apparatus.

In tuberculosis of the knee, physiological rest must be secured by the perfect fixation of the joint, and the effort to effect a cure by this simple means must not be despaired of even if improvement is not apparent for months or years. The mistake usually made in handling such cases is the too frequent change of the plaster cast.

In tuberculosis of the spine, physiological rest should be secured by the application of a properly fitted Sayer's plaster jacket, provided the patient be sufficiently developed to have hips prominent enough to bear its weight. In children under five years of age this method is not sufficient, and temporary resort must be had to the recumbent position on a hard flat mattress. Immobilization should be the treatment for all cases of joint tuberculosis until either a cure has been effected, or it is distinctly settled that it alone is inadequate. Even when some further procedure is to be resorted to, fixation must be continued as an essential adjuvant.

2nd. Aspiration. If the disease assumes the hydropic form, aspiration is the simplest operation which can be resorted to. It relieves tension and promotes absorption. Compression of the joint by strapping with adhesive plaster, or by enveloping it with cotton and applying a firm bandage, will tend to inhibit the reaccumulation of fluid.

3rd. Iodoformization. After aspiration it is often advisable to inject a 10 per cent. emulsion of iodoform and glycerine into the joint. One treatment is rarely sufficient and it is almost certain that the fluid will reaccumulate. If the aspiration and iodoformization, however, are repeated at intervals of a few weeks, the amount of fluid in the joint steadily diminishes, and a complete cure often results. A combination of immobilization, aspiration and iodoformization should always be faithfully tried before resorting to more heroic measures.

4th. Operative Treatment. When the foregoing methods fail, we are left the choice of four operations, which, are described in the order of their conservatism.

(a) Arthrectomy consists in opening the joint and the removal of its synovial membrane, together with such part of its capsule and ligaments as are diseased. Although as a result there is usually loss of motion the limb is not much shortened and is very useful. Unfortunately the range of this operation is limited It is only applicable in the primary synovial form of the disease, because if the disease begins in bone or or has extended to it, it will not remove all of the infected tissue.

(b) An atypical resection consists in opening the joint, the removal of the diseased synovial membrane, capsule and ligaments, and curetting out any foci of disease in the articular ends of bone forming the joint. This operation is especially indicated in dealing with the disease in children, provided it is sufficiently radical to effect a cure, as it does not remove the epiphyseal extremity of the bone and thus impair the growth of the limb.

(c) A typical resection consists in opening the joint and sawing off the articular ends of the bones, thus removing the joint. When the operation is done upon the hip or shoulder, the osteal surfaces are held apart so that a fibrous union may result, giving the patient a false or flail joint; when it is done upon the knee, the osteal surfaces are held in close apposition by means of sutures, nails or splints, in order that ankylosis may follow and the patient may have a stiff leg. A typical resection should not be done on children if the disease can be removed by more conservative measures, because the destruction of the epiphyseal line will arrest or retard the growth of the limb, so that at maturity it may be useless if not burdensome.

(d) An amputation or the removal of the limb in joint tuberculosis is usually the result of ignorance, neglect or delay on the part of the patient or his physician. Still, it is often the only means of saving life, when the disease has been allowed to go from bad to worse until a tubercular abscess has perforated the capsule, and infiltrated the adjacent tissues.—The Virginia Medical Semi-Monthly.

DIET AS A THERAPEUTIC MEASURE IN DISEASES OF THE SKIN.

By George Henry Fox, A.M., M.D.,

In the first place, I wish to lay great stress upon the importance of a careful regulation of the diet in the treatment of all inflammatory affections of the skin, and this will include

all skin affections in which the congestive element is present in a greater or less degree. While dieting cannot be expected to cure lupus, syphilis, or malignant disease, it certainly can improve the condition of the patient and modify the local conditions to a slight extent, and hence may prove of service in nearly all skin diseases. But why lay stress upon the importance of diet, "which nobody can deny," and which nobody is even disposed to deny? For this reason. While every physician professes to believe in the efficay of diet in the treatment of disease, very few are inclined to practise it, or at least to accept it as sound doctrine. The majority pin their faith and base their practice upon the prescription pad, with the same confidence that their grandfathers reposed in the lancet.

In the second place, I emphasize the fact that the majority of patients and those likely to become patients (not to speak of ourselves) are in the habit of eating too much. The adage that 'The board kills more that the sword" is as true as it is old. While it is undeniable that some patients suffer from malnutrition and need to be better nourished before skin disease can be radically cured, it is also true that these patients can often be benefited by a temporary restriction of diet. If a man has a sprained ankle and wishes to join a pedestrian race, it would be folly for him to limp along in the rear of the procession, when by a complete rest for a period his ankle might regain its strength and possibly enable him to overtake his competitors. A man with a sprained stomach or imperfect digestive apparatus, who wishes to gain weight and strength, will often do well to stop eating, or take a very little of the most readily digested food, until his appetite is sharpened and his digestive powers are in a condition to do their normal work.

For every patient suffering from inflammatory skin disease who is eating too little and suffering from lack of nourishment, we meet with a score or more who eat far more than they actually need and feed the eruption for which they seek relief. Now it is to this unnecessary and often injurious excess of food, combined with sedentary habits, that I attribute a large proportion of the inflammatory skin diseases which we are called upon to treat. I know of no prescription which compares in simplicity and efficacy with the advice to cut down the weight five, ten, or perhaps twenty pounds.

In the next place, I would like to express my firm belief that an excess of nitrogenous food, in which both physician and patient are accustomed to indulge, is prejudicial to the health of both mind and body. Without doubt it is the cause of many of the ills which were formerly ascribed to malaria, and now commonly attributed to another scapegoat, to which is often given the absured name of "uricacidemia." It certainly is responsible for the existence and persistence of many cutaneous affections. I cannot say just what they are but, in passing, might mention the relation of psoriasis to a liberal meat diet. I have rarely seen a patient with chronic psoriasis who had not observed for himself, or could demonstrate after the matter was suggested to him, the fact that during the free use of meat the patches invariably became more congested. In the catabolism undergone by the proteid or albuminous element of food will doubtless be found the origin of the autotoxins which cause many of our common skin diseases.

A change of diet I have always claimed to be of great advantage, even if it be from a theoretically good diet to a theoretically bad diet. An inflammatory skin disease is the result of some definite cause, whether we are able to discover it or not. Most of our patients cling to that old and erroneous belief that they can go on living as they please, and throw the responsibility of their cure upon the doctor, and unfortunately many physicians are willing to accept this condition. As physicians, we should both realize ourselves and strive to make plain to our patients that they, in many cases, are responsiblse for their health.

Finally, I refer to the fact that the character of the food advisable in the treatment of cutaneous and other diseases is of less importance, perhaps, than the manner in which this food is taken. It is not what a patient eats, so much as it is how, and when, and under what circumstances he eats, that tends to the production of an inflammatory condition of the skin. Hasty eating, irregular eating, and meals taken under the stress of excitement and worry are the daily experiences of many of our patients.

In discussing diet in the treatment of skin diseases I cannot refrain from referring to exercise and the cold bath. Diet, exercise, and bathing constitute the tripod of every physical trainer, restoring health, imparting strengh, and inspiring energy. They are our faith and hope, and just as they tend to engender a fit condition for physical exertion, just as certainly will they put many cases with inflammatory skin disease in a condition in which nature alone, or assisted by medical skill, will speedily effect a cure.—THE THERAPIST

A Mirror of Practice.

SOME CONSIDERATIONS IN THE USE OF CARDIAC TONICS.

Haines in Folia Therapeutica for October, 1907, points out that of the group of cardiac tonics all exert some action on peripheral blood-vessels; they may cause a most intense constriction, as in the case of apocynum or squill, or a very small effect, as in that of strophanthus. This difference in their action is of some importance when one is treating cases of heart disease associated with arterial degeneration and high blood-pressure. In these cases, when dilatation of the heart, back-pressure, and all the secondary effects resulting from it, are the result of persistently high arterial blood-pressure, it is obvious that we should not be content in administering digitalis in the routine manner. We must aim not only at increasing the efficiency of the heart, but at keeping the vessels as much dilated as possible in the circumstances. For this purpose it has been suggested that vasodilator drugs, particularly the nitrites, should be administered along with the cardiac tonic. Unfortunately such a combination does not produce the desired effect. First the nitrite effect overshadows that of the cardiac drug, and vasodilatation is the prominent feature; then the cardiac drug obtains sway, and the dilatation disappears. Nevertheless beneficial effects have followed the use of erythrol tetranitrate combined with digitalis or strophanthus.

The author points out, however, that other vasodilators are now known which are almost as efficient as the nitrites, but without some of their objectionable properties: he refers to the purin derivatives—caffeine, theobromine, and theophyline. All these bodies increase the rate of the heart-beat by direct action on the heart muscle, dilate the peripheral blood-vessels as has been shown by Dixon, and augment the flow of urine. Caffeine is of course a cerebral stimulant; it at first excites the vasomotor center and causes constriction of the peripheral arterioles, the central effect for the time being overshadowing the peripheral dilatation. Theobromine has little or none of these central action, and so it produces an immediate dilatation of the vessels, and is, therefore, a suitable substance for combination with the cardiac tonics in such conditions as that to which he has referred. It may be administered conveniently in the form of diuretin, which is a combination of theobromine with sodium salicylate, and has the advantage of being easily soluble. It affects the heart like caffeine—that is, it increases the rate and to some extent the force of the beat. An isolated rabbit's heart in one of the author's experiments showed the effect of diuretin, suitably diluted with Ringer-Locke solution, when perfused through the coronary vessels. One effect noticeable in this experiment, but which is not recorded on the tracing, is the marked dilatation of the coronary vessels. This action on the vessels was noted in another instance by a record of the rate of flow through the vessels of a frog perfused with a weak solution of diuretin in saline solution.

The combined action of a cardiac tonic with a vasodilator of the nature of diuretin is to slow and strengthen the heart-beat and to increase the flow of blood through the vessels, including the coronaries. To some extent the action of the tonic on the vagal endings would be neutralised by the action of the diuretin on the excitomotor area, but the vagal effect always overshadows the tendency to acceleration, and the heart consequently beats more slowly.

Theobromine differs from some other vasodilators in that it exerts a stimulant action on the heart. This was shown in still another instance in which was recorded the heart-beats of an isolated rabbit's heart perfused with saline solution. In this experiment the addition of diuretin to the perfusing fluid not only increases the rate of flow—that is, dilates the coronary vessels—but increases the force of the heart-beat. Perhaps one of the great disadvantages of administering digitalis in cardiac disease is that it tends to diminish the flow through the coronary vessels by constricting them. The author believes that this effect may be to a great extent overcome by giving the digitalis along with a theobromine preparation such as diuretin.

In addition to the coronary vessels theobromine dilates all other peripheral vessels, but owing to the augmented action of the heart the blood-pressure does not fall below normal, but tends to remain even a little above it. Diuresis is an early effect, and is secondary to the increased flow of blood through the kidney—that is, the vascular changes are primary to diuresis, not secondary; there is no evidence to show that diuretin has any specific action on the renal epithelium.

Such a combination of drugs as suggested has produced an excellent effect in cardiac dropsies, failing hearts, and, above all, in general degeneration of the cardiovascular system, following on persistent rise in blood pressure. Fifteen grains of the theobromate may be combined with ten minims of a reliable tincture of digitalis, and administered every four hours for two or three days; but it is better after that period to omit the drug for some days, not only because digitalis is cumulative, but because the effect of the drug tends to diminish with repeated use in small doses.

In Pulmonary Consumption.

Dr. John's CONSUMPTION INHALATION. The Faculty pronounce it the only Cure for Consumption and all Throat and Lung Troubles.

Recommended as a certain remedy in the first and second stages. Is based on scientific reasoning and principles, and is an embodiment of the results of the investigations of Koch Luton and Pasteur, and all the great germ specialists, who have declared that the consumptive germ cannot live a minute in the presence of the ingredients of this wonderful compound. Write to-day. It is a sure cure. The first week's treatment will do more good than all the medicines, Cod Liver Oils, of changes of climate. Don't delay. There is not an hour to lose in cases of Consumption, or any throat or lung trouble. Even in the most advanced and hopeless cases of Tuberculosis and Consumption life is prolonged. Per phial Rs. 4. Packing and Postage 4 As.—Per dozen, Rs. 44.

Dr. T. Foster, A.M., M.D., says :—says I can recommend it with every confidence. It is the very best treatment; simple and effective. Dr. L. Paul, M.D., says : It never failed to cure almost every case. Relief was certain.

Avoid imitations : Only from Ellwood, & Co., Globe Chemical Works, Calcutta.

The Indian Lancet.

CALCUTTA : MONDAY MARCH 9th, 1908.

CATS AND PLAGUE

It is amusing to notice the various theories and hypothesis regarding the origin, spread and prevention of this scourge of India-Plague, within the last few years. It is now an established fact that the ultimate cause of Bubonic-Plague is a microbe, which can be easily demonstrated under the microscope and is easily cultured. Further, now we know that the modes of infection is by rat-fleas chiefly, which bite human beings after the rat dies and its body becomes cold and by means of infected dust around plague-stricken areas. The use of boots and leggings (putties) amongst the poorer classes and their keeping off dust will no doubt prevent the one minor channel of poison.

Now, we come to the destruction of rats. We have found how difficult it is to kill these animals but we have been convinced that the more thoroughly this warfare is carrid out, the less have been the ravages of plague. The rat-traps have one nd all proved practically more or less inefficient. Poisoning of rats has, not only, in most cases, failed in the longrun but is fraught with public danger The chemical and other methods of house disinfection is no doubt very good and scientific, but the rats during and immediately after the process of disinfection keep snug in their subterranean holes and come out when the noxious fumes or liquid have expended themselves and have become inoccuous. Because disinfection did not seem to do much good the Punjab Government saved some money by abolishing this system. We do not approve of the local government's action in the far North.

After riots and impeachments of scientists today. Inoculation has established its value; though it is a pity its protective effect lasts only a short time. Cleanliness and sanitation are also factors of great import in the crusade against plague. We appeal to the local governments and the Imperial Government to thoroughly overhaul their Sanitary and Medical Departments. Let only first class scientists be in charge of the Sanitary and bacteriological sections. Lt. Col. Buchanan I.M.S., from Amraoti lays stress on the importance of keeping cats as pets in all houses. These cats will effectually and yet inexpensively kill rats and thus help in checking the spread of this dire disease.

We fully concur with Dr. Buchanan's views and urge on the public to domesticate cats and thereby encourage the living traps for. The destruction of the plague—disseminator That inoculation for plague is inferior, in value to the keeping of cats as domestic pets is beyond a shade of doubt proved by the following facts. The protective value of inoculation, as it now stands, is only very short lived whilst cats may entirely stop the spread of plague by gradually exterminating rats. Inoculation is followed by fever, local discomfort and malaise, whilst keeping of cats has none of these untoward items. Inoculation can only be done under medical supervision and at some cost to the state, whilst these things do not obtain in keeping of cats.

It has been found that cities which are granaries are more liable to the virulence and permanency of plague. The explanation of this is not far to seek. Rats abound where grain and other foodstuffs are stored and an increase in the number of rats, necessarily means a proportionate rise in plague statistics. The keeping of cats on a large scale is an experiment well worth trying.

Annotations.

STEAM FOR THE COMPLEXION

A thorough steaming has a wonderful power occasionally in clearing the complexion. It may be accompliished by holding the face over a basin of hot water and keeping in the steam with a towel which covers the head and the basin, forming a sort of tent. After steaming for a short time, wash the face well with a good superfatted soap and warm water, and then douche the face with cold water. The soap does the work of cleansing, the hot water removes the suds, and the cold closes the pores of the skin, which it braces so that it is not made too sensitive to bear the effects of cold winds.

POISON IN PERFUMES.

It is believed that strong perfumes have power to intoxicate and benumb, and though workers in perfume laboratories are occasionally so much affected as to need medical aid, little attention has been paid by physiologists to the effect of odours. But now a German physician has made a series of experiments which fully confirm the popular belief. The experiments were not made on human beings, but on frogs, which were put under glass with sponges saturated with various essences. The effects are similar to those of chloroform. There is a brief stage of excitement, followed by partial or complete paralysis. Although many odours were used they were found to differ in rapidity of action, and the notoricusly heavy and "beady" musk was found to be one of the slowest. Camphor, peppermint, lavender, and cloves are also slow, while aldehyde, turpentine elderflower, ylang ylang, "peau d' Espagne," asafœtida, bi-sulphuret of carbon, mustard, and nicotine act quickly and energetically. In some cases the effect was instantaneous.

MUSCULAR DEGENERATION.

Over-exercise is bad for the individual. It wastes vitality, weakens the system, fills it with poisonous fatigue products, and, if persisted in, shortens life.

But the other extreme is equally bad. Failure to develop the muscles, or their degeneration for want of systematic, moderate use, predisposes to a disturbance of nutrition and circulation, leading to accumulations of fat on one hand, and imperfect elimination on the other.

Obesity, constipation, tropid liver and kidneys, fatty heart and fibroid degeneration of the blood-vessels, are some of the results of muscular degeneration. The substitution of fat for muscle in the abdominal walls and hips is responsible for prolapsed and congested viscera. Displaced and congested organs will not functionate normally, of course.

Muscular degeneration affects the joints, leading to fibrous changes, drying up of synovial fluid, and the deposit of urates. In their turn, these irritating products in the joints will cause sensory and motor neuroses, which pain and disable the individual.

Muscular degeneration also occasions anæmia, because activity of the muscles is directly concerned in the production of hemoglobin, and hemoglobin carries the oxygen to burn tissue waste into soluble products easy of elimination.

This burning also produces heat and energy, keeping us comfortable and furnishing the power to work.

Moreover, the normal development and moderate regular use of the muscular system overcomes such moral faults as timidity, indolence, procrastination, lack of perseverance—in a word, helps to discipline the moral powers and gives the individual command of all his forces. Endurance is increased and courage fortified.

It should be insisted upon that sedentary and neurotic patients employ some one of the many good methods now in vogue for the symmetrical development of the muscular system. A book of prescribed exercises is all sufficient, but if they buy an apparatus, hire a teacher, or join a gymnasium, they are more likely to stick to it until the irksome part is over and they begin to derive some real benefit and pleasure from their efforts.

THE TOILET.

One of the best cleansing agents for the hands is to take one tablespoonful of corn meal (yellow) and four tablespoonfuls of vinegar, rub well into hands for about two minutes, then wash off in clean cold water, dry carefully, and the hands will be soft, clean and velvety. Sour milk can be used in place of vinegar with just as good results.

When tired and weary after a day's outing or travelling, it is a great mistake to plunge the face into cold water, which really acts as an irritant, whereas tepid water produces quite the contrary effect. After washing off the dust on face and ears, a little buttermilk, or, failing that, rose water dabbed on will soothe and whiten the skin and take away the feeling of irritation.

NOISES IN THE HEAD.

Noises in the head arise from a variety of causes. Indigestion, nervous irritability, plethora, and cerebral congestion—

these are only a few of the ailments which cause so much pain and suffering to the patient.

Cerebral congestion, or hyperæmia, is a disease not entirely confined to any age, and is usually dependent upon general disease. As a rule, the patients are adults, and more often men than women The special symptoms are fulness of the head, flushing of the face, a sensation as if the head were confined in a tight band. The sufferes complains of "roaring," or "noises in the ears," and very often sees bright or dark specks or motes. There is a sense of pressure behind the eyeballs, and the eyes are red and watery. Headache is a constant symptom, and the patients are troubled with loss of memory, irritability, and general restlessness. They are often low-spirited, and mental action is obscured and slow. Sleep is troubled, and disturbed by dreams. The skin, especially of the face, is puffed and red, and at times the vessels of the temples stand out prominently.

Current Medical News.

SERIOUS ALLEGATIONS AGAINST THE CORPORATION.

An alarming report having gained some currency in Calcutta that a serious out-break of small-pox had occurred in epidemic form in the locality between Bolaram Bose's Ghat Road and Hazra Road, in Bhowanipore, a news reporter called on Dr. Mullen the other day and was informed that, so far from there being any such outbreak, District IV was at the present moment healthier than other parts of the town, except that there was a good deal of cholera in the neighbourhood of Kalighat, which he thougth was due to the recent influx of pilgrims. "Of course," he said, "the district is not free from small-pox, which is generally more or less prevalent in the months from December to March; but the deaths from this disease in the Bhowanipore part of the town are comparatively few in number. The mortality from small-pox in December was 9, in January 4, and up to the present 5 in February."

As a good number of these cases had occurred in the locality round Bolaram Bose's Ghat Road, Hurrish Chunder Mukerji's Street and Hazra Road the reporter inquired whether the outbreak was not caused by the filling up of some of the tanks in the vicinity with street refuse, which was alleged to be the case.

Dr. Mullen stated in reply that he had received no information of any tanks being filled with refuse. There was a distinct prohibition against the use of street sweepings and material of this kind for the purpose, and he was not aware of such being used for filling up any tanks in his district, though he had a idea that the engineering department did sometimes use unsuitable stuff. Even if a tank had been so filled it would not cause an epidemic of small-pox, though such a state of things would undoubtedly favour the spread of the disease. In order to ascertain the facts he deputed Dr. Sen to accompany the representative to the tank which was being closed.

On arriving at the termination of Hurrish Chunder Mukerji's Street, at the point where it intersects Bolaram Bose's Ghat Street, there was an abominably filthy tank which had been partially filled in. The water was perfectly green and putrid, emitting an objectionable odour. The people about stated that street sweepings had been thrown into the tank without any attempt at dewatering and over it all a top dressing of earth had been used. Even this earth was brought there in a semi-liquid form and left to dry on the open ground near the tank. They believed that it was silt and other equally objectionable material obtained from the scrapings of drains. Several carts loads of it were brought and accummulated there, and at first it gave off a very obnoxious smell. After a few days it became dry and was utilised for the top dressing. Some of the residents of the locality stated that the nuisance was not so great at the moment because after a hot and sunny day there was a very appreciable diminution, but the stench was intolerable during the night and in the morning.

The house closest to the tank in question, in fact almost by the side of it, belongs to Babu Charoo Charan Chatterji, one of whose relatives was the last victim to small-pox in that locality, and it is said that another inmate of the house has also been attacked.

The reporter was informed by one of the residents that several tanks were being similarly filled with street refuse. He said that the Corporation had one measure for themselves and an other for the ratepayers, If the latter wished to fill up a tank the greatest care was exercised to see that only good earth was used; but when the turn came for the Corporation to do this work for themselves and they had to close up their own tanks, they did it with garbage and all sorts of objectionable material. This gentleman directed our reporter to another tank in Hurrish Chunder Mukerji's Street, which he said was objectionable. This tank was found to be in an equally insanitary condition. On a board, which had evidently been put up many months ago, for the letters were partly defaced, there was a notice stating that "the Commissioners are satisfied that the water of this tank is in such a state as likely to engender the spread of dangerous diseases and persons are hereby prohibited under penalty of prosecution under the provisons of Act II of 1888 from using or taking water from this tank."

One gentleman said:—"If the condition of this tank was so bad when the notice was put up, it is in a very much worse state now, and one wonders why it was not dewatered long ago." Portions of it have been filled in and only a glance is necessary to convince anyone that a good deal of garbage has been used in the process. There was a decided stench even after "a very hot and sunny day." Fortunately the tank in question is in the centre of a large open spot, the nearest house being some distance away from it.

THE value of Fellows' Syrup in the debilitated conditions following Cholera, Malaria, Typhoid, and other fevers, is most marked; and in the treatment of Anæmia, Neurasthenia, Bronchitis, Influenza, Pulmonary, Tuberculosis, and Wasting Diseases of Childhood, and during Convalescence from Exhausting Diseases.

THE PHYSICIAN OF MANY YEARS' EXPERIENCE

Knows that, **to Obtain Immediate Results,** there is no Remedy that Possesses the Power to Alter Disordered Functions, like Fellows' Syrup of Hypophosphites.

Fellows' Syrup of Hypophosphites

Many a Text-book on Respiratory Diseases Specifically Mentions this Preparation as Being of Sterling Worth.

TRY IT, AND PROVE THESE FACTS.

SPECIAL NOTE.—Fellows' Syrup is never sold in bulk, but is dispensed in Bottles containing 8 oz. and 15 oz. This Preparation may be obtained at all Chemists and Pharmacists throughout the World.

Cow's Milk may be *Modified* by

Mellin's Food

which attenuates and changes the casein, the proportion of available proteids being thus increased.

MELLIN'S FOOD mixed with fresh **cow's milk increases the available** and assimilable CARBO-HYDRATES.

Mellin's Food renders the composition of the ash constituents like that of Human Milk.

Complete Tables of Analyses and Samples will be forwarded to Members of the Medical Profession on application.

Mellin's Food Co. for India, Ltd., Calcutta Works, Redclyffe Road, Upton Park, Eng.

Ammonol

(AMMONIUM-PHENLY-ACETAMID.

The Stimulant

Ethical Antipyretic and Analgesic

AMMONOL AND COMBINATIONS.

Ammonol Powdered.
Ammonol Salicylate Powdered, in one-ounce bottles only
Ammonol Tablets
Ammonol Salicylate Tablets
Ammonol Lithiated Tablets
Ammonol Peptonate Tablets
Ammonol Bromide Tablets
Ammonol Camphorated Tablets
Ammonol with Camphor and Codein Tablets
Ammonol with Ipecac and Opium Tablets
Ammonol with Quinine
In five grain flat oval tablets, put up in one-ounce bottles only.

Ammonol is the ethical Antipyretic and Analgesic par excellence. Unlike other products which assume to produce the same effects, Ammonol has stimulating properties which prevent the untoward depression so often resulting disastrously in the case of these other agents. It is a specific in Fevers, Neuralgia, Atonic dyspepsia, Pneumonia, Gastralgia, Bronchitis, Coryza, Catarrhal Influenza, La Grippe, Rheumatism, Hysteria, Alcoholism, Amenorrhœa Dysmenorrhœa, Uterine and Intestinal Colic Obstinate Vomiting, Catarrh of the Bile Ducts, and Jaundice.

More than 25,000 physicians have testified by clinical reports to the efficacy of AMMONOL, during the last few years.

Ammonol may be obtained from all leading druggists
Send for "Ammonol Excerpta," in 81 page pamphlet

The Ammonol Chemical Co. Manufacturing Chemist
NEW YORK, U. S. A.

FORMULA: Fluid extracts of the plants Galega-Vera, Apolinea and Tephroses.

Nutrolactis

THE GALACTAGOGUE
FOR NURSING MOTHERS
THE NUTROLACTIS CO. NEW YORK, U.S.A.

MANUFACTURED
SOLELY BY
THE NUTROLACTIS COMPANY,

Approved by the Academy of Medicine, Paris. Reports of the investigation by the Academy of Medicine of Paris will be sent on request.

DR. ROBERT MILLBANK, Fellow of the Academy of Medicine New York; Member, New York County Medical Society; Member of Society of Alumni Bellevue Hospital; Late Visiting Physician, New York Infant Asylum. Said in *The New York Medical Journal*, Nov. 16, 1896. "I gave a few years ago the results of about one hundred cases in my Hospital practice in which I prescribed NUTROLACTIS. I believe that when mother's milk is scanty and of poor quality, it restores the normal flow and quality, and causes a corresponding improvement in the digestion and nutrition of the infant. I have never seen any bad effects from its continued use to either mother or child."

During a discussion at the Academy of Medicine, New York, May 10, 1894, the Professor of Diseases of Children in Bellevue Hospital Medical College, DR. J. LEWIS SMITH, M.D., said that NUTROLACTIS had been found to decidedly increase mother's milk in two institutions with which he was connected.

Similar testimonials have been received from 14,200 physicians.

Offices: 366 West 11th St., New York City, U. S. A.

Laboratories: 366-368 West 11th St.

HORLICK'S MALTED MILK

No Contamination Possible

A . . Nutritive Tonic

MALTED MILK is more nourishing than cod-liver oil, and equally beneficial, not only to sufferers from phthisis, but to the Sick and Convalescents generally. It is the only prepared food for Infants and Children. It can be given where necessary from the moment of birth, and it is excellent for Nursing Mothers.

It is in Powder Form and can be prepared in a few moments by simply stirring in water.

Sold in two sizes by all Agents in India, Burmah, and Ceylon; and
Horlick's Food Company, 34, Farringdon Road, London, E.C.

EYESIGHT OF CHILDREN IN INDIA.

The report of the medical department of the Army for the year 1906, just published, contains, among other important matter, an account of an inquiry into the state of vision among the children of British soldiers at the chief military stations of India. Officers of the Royal Army Medical Corps who had qualified as specialists in ophthalmology were sent during the year to Rawalpindi, Peshawar, Nowshera, Ambala, Sialkot, Calcutta, Bareilly, Fyzabad, Lucknow, Meerut, Karachi, Mhow, Ahmednagar, Poona, Kirkee, and Bombay, with instructions, to examine the vision of the children of British soldiers, and to give the parents information regarding spectacles whenever these were required. The officers were also instructed to report on the lighting of schools and the structural alterations necessary to improve it; on the desks and seats, with reference to their adaptability for proper vision; and on other subsidiary factors connected with the vision of school children. The examination was only of children over seven years of age, and the results obtained are calculated to throw some light upon what may be expected when, under the regulations of the Board of Education, similar inquiries are instituted in this country. Six hundred and twelve children were examined, and of these 99, or 16 per cent., were found to have defective vision, which, in 88 of the cases, was attributable to error of refraction —that is to say, to faulty shape of the eyeball, unconnected with disease, and more or less completely remediable by spectacles. In all these cases the parents were informed of the nature of the visual defect, and advised what spectacles to procure; and with few exceptions they provided them at their own expense. In several cases it was remarked that children who had been considered wanting in intelligence became quite bright and intelligent after the supply of glasses. The great majority of these refraction cases were due to hypermetropia, or flat formation of the eye-ball, and the cases of short sight with or without astigamtism amounted only to 2 per cent. A large majority of the children were under 12 years of age; and short sight is seldom much developed until a somewhat later period. There were 19 cases of squint, of which 16 were of such a kind as to be remediable by glasses or operation, or both combined; and the examiners were generally of opinion that Army schoolmasters had failed to realise their responsibilities with regard to preventing deterioration of sight in children constantly under their observation. The arrangements with regard to lighting and to the shape and position of desks and seats were, generally speaking, deplorable, the lighting especially being everywhere "defective" and in some instances "very bad." Extracts from some of the reports on this subject are given, and the "whole arrangement" is described as "most unsatisfactory" and as favouring the development of squint, myopia, spinal curvature and other deformities.

Another important subsidiary cause of deterioration of sight in school children was inquired into—namely, the use of small, ill-defined, closely-set type, which even in a well-lighted room necessitates holding the book to a shorter distance than 12 inches from the eyes. With the two notable exceptions of the Bible and the Prayer book, the type in use was satisfactory, but in these, which have to be constantly read by the children, the type is much too small, and the necessity for an immediate change in this respect has been represented. The medical officers who conducted the examinations dwell upon the "urgent necessity" of effecting improvements in the lighting of the schools and of supplying suitable desks for the children; and rest their detailed recommendations upon the ground that as attendance is compulsory, there can be no question as to the moral obligation to alter any conditions which render it injurious to the children.

Another result of the addition of the specialists in opthalmology to the Royal Army Medical Corps has been the examination for defects of sight of a number of soldiers who have either presented themselves voluntarily or have been sent by their commanding officers. In this way a certain number of otherwise good soldiers have had their distant vision so far improved as to render them good shots, and men have been retained in the service who would have been invalided. The vision of the men of four infantry regiments has been carefully examined during the year, and of these 297 (out of 2,437) were found to be in various degrees defective. The experimental issue of glasses to a number of these men has, after a year's trial, given such encouraging results as to warrant a further trial limited to third-class shots. It is anticipated that some of these men can have their distant vision so much improved by spectacles as to enable them to become second or even first-class shots, and in the regiments above mentioned 70 per cent. of those who were supplied with glasses improved considerably in their shooting.

A PLEA FOR THE LEPER.

THE PRESENT NEGLECT DANGEROUS TO THE COMMUNITY.

The Rev. W. Powell, who is in charge of the Leper Home at Bapatla in the Guntur District, South India, is now on a visit to Calcutta, where last year he received a considerable amount of support for the excellent work in which he is engaged.

In the course of a conversation with a representative Mr. Powell expressed his conviction, based upon 21 year's experience, that in the interests of the lepers and of the community better provision should be made for these poor sufferers. Only those two have given some attention to the subject can be aware of the cruel treatment which embitters the lot of the leper, tortured as he is by the most loathsome of diseases. Scores have neither clothing nor shelter. Food is refused to them, and Mr. Powell knows of several instances of lepers who have died from sheer want. Not many months ago a leper literally died of thirst. He was not allowed to draw

water from the wells, and not even his relatives would give him any.

The community require to be protected, for leprosy is both infectious and contagious. The danger arising out of the present lack of precautionary measures must be considerable. Last year Mr. Powell noticed fifteen lepers on Howrah Bridge and discovered others mixing freely with healthy people in the market. The Leper Act he looks upon as a useless piece of legislation, for while it empowers the police to remove a leper of whom complaint is made, the Act does not say to what place he is to be removed, or what is to become of the poor wretch. The various missionary homes and settlements, are at present the only efforts to cope with the problem. Mr. Powell has 116 lepers in the Bapatla Home, and could gather hundreds more if he had funds to support them. The real solution of the leper question would, however, be to make the lepers of any district a charge upon the funds of that district, and Mr. Powell hopes to see legislation to this effect.

BOMBAY PLAGUE RELIEF FUND.

The following is the annual financial statement of the Bombay Plague Relief Fund :—

Balance on 1-1-1907 in Bank of Bombay Rs. 4,231-2-7, in hand Rs. 14-0-7—total Rs. 4,245-9-2, amount received during the year 1907, Rs. 20-0-0,—total Rs. 4,265-9-2. Disbursements :—Amounts disbursed from 1-1-07 to 31-12-1907 in affording relief to widows, children and others rendered destitute or who suffered through Plague Epidemic, Rs. 550-0-0—balance Rs. 3,715-9-3. Balance available on 1-1-08 in hand Rs. 14-6-7 ; with the Bank of Bombay on 1-1-1908, Rs. 3,701-2-7—total Rs. 3,715-9-2,

A Famine Fund has been started for the relief of persons in distress in the Myingyan District of Upper Burma. A Committee has been appointed for the purpose of collecting subcriptions and organising the distribution of gratuitous relief to necessitious persons in the Myingyan District, who are in need of assistance on account of the serious crop failure and severe scarcity.

During the week ending 11th February 106½ chests of opium were removed from warehouse in Bombay. Of these 1 chest was shipped to Zanzibar, 67 were purchased for the Government of Bombay, and Farmers purchased as follows :—Ahmedabad 10, Nasik, 2½, Ahmednagar, 9, Surat 3, Sholapur 5, Gondal 2 and Poona, 7. During the week 20½ chests were imported from Indore and 100 from Ahmedabad.

NATIONAL MEDICAL COLLEGE OF INDIA.

A new kind of treatment for consumption has been inaugurated at the National Medical College of India (Bow Bazar, Calcutta). The College authorities have arranged for the treatment of this disease with its attendant fever by means of ozone. In Europe this treatment has attained wide popularity due to its beneficial effects. The College has already about 3,000 students on its roll and has vindicated its national title inasmuch as boys are attending from all parts of India. Lala Lajpat Rai and the Hon'ble Mr. Gokhale recently visited the College and spoke highly of the good work it was doing and said that they would have been most fortunate if in their time they had these national institutions. It was a national duty to attend them. Mr. Surendronath Banerjee, speaking at a reception at the College, advised the young men not to enter Government service, but to go in for medicine, which gave an open field for independent-minded people.

SHORT ITEMS.

A wedding took place in Christ Church the other day, when Miss Marian Effie Murray, second daughter of the Hon. Colonel R. D. Murray, Inspector-General of Civil Hospitals, was married to Mr. Kenneth Campbell of Calcutta. It was a brilliant and largely-attended function.

Captain W. H. C. Foster, I.M.S., will shortly complete his investigation into the causation and treatment of dysentery in Indian Jails and Lunatic Asylums.

Owing to an outbreak of plague in Durbhanga, the annual meet of the Behar Volunteers, which was to take place on the 24th instant, has been abandoned.

MILO MALTED FOOD

UNTOUCHED BY HAND

DELICIOUS AND HIGHLY NUTRITIVE ASSIMILATIVE AND DIGESTIVE

Ensures a Vigorous and Healthy Growth

PREPARED BY MACHINERY IN THE

MOST UP-TO-DATE AND SCIENTIFIC METHOD

An Absolute Nourishment for Infants, Children and Invalids.

HIGHLY RECOMMENDED BY THE MEDICAL FACULTY.

ALWAYS READY! NO COOKING! THE LATEST FOOD!

PREPARED BY

HENRI NESTLE, LONDON

Local Representatives:—

MEYER SOETBEER & CO., CALCUTTA,

FROM WHOM FREE SAMPLE CAN BE OBTAINED.

ORIENTA APERIENT WATER

Is a clear, pure water, containing the most soluble purgative salts effectively combined.

Acts as an intestinal antiseptic, as well as a purgative, eliminating germs and preventing auto-infection (ptomaine poisoning). This action is solely due to sodium sulphite contained as a fixed compound in the water.

Is acceptable to nearly all patients, as it never produces nausea, weakness or thirst. In its use purgation is not followed by constipation, as is unfortunately too commonly the case with other purgative waters.

Does not weaken; it produces a tonic effect, stimulating the whole system, appetite is increased, sallowness and foulness of the breath disappear, headaches and vertigo vanish.

Is the only purgative water the use of which is unaccompanied with disadvantage in genito-urinary diseases.

Relieves women suffering with hemorrhoids and diseases of the uterus and ovaries, by reducing the congestion of the pelvic viscera.

Re-establishes the normal flow of bile, and is thereby a prophylactic in cases of biliary colic, due to the passage of biliary calculi.

Is indicated in cases of flatulency, bilious attacks, eczema, glandular enlargements and scrofula.

Benefits chronic nervous conditions, atony of the stomach and intestines, certain forms of diseases of the heart and circulatory system, chronic cases of skin affections and certain diseases of the lungs.

If used regularly alone, will often suffice in cases of influenza, diarrhœa, malaria, gastric and febrile disorders and infectious diseases by enabling the engorged, digestive, circulatory and lymphatic systems to regain their normal condition.

Acts in trifling doses. One small wineglass taken on an empty stomach immediately before breakfast produces a well-marked laxative effect in an adult. The dose for women or children should be reduced to one-half or one-third.

Is now considered an indispensable mineral water, especially in large city practices where it is important to husband the patient's strength, under penalty of their developing anæmia, or breaking down under the nervous strain and becoming neurasthenics.

Is cheapest because best. It is now prescribed by the leading physicians and stocked by all first-class retail druggists.

The ORIENTA Manufacturing Co., Cal., Ind.

A sample bottle will be sent free to any Physician if he will pay express charges.

SOLD EVERYWHERE.

Current Medical Literature.

MEDICINE.

CHRONIC ALCOHOLIC LEPTOMENINGITIS.

Laurie (Australasian Medical Gazette) mentions some of the confusing statements found in the standard writers regarding this disease. Gower says that in chronic alcoholic meningitis the convexity is chiefly involved. The symptoms are headache, slight delirium, mental failure, and slight optic neuritis. Osler says that chronic leptomeningitis is rarely seen apart from syphilis or tuberculosis. Bulloch (Allbutt's System of Medicine) says that apart from the truly gummatous lesions it is possible that syphilis can cause a chronic indurative leptomeningitis. The usual site is the sulci of the convolutions, more rarely on the base of the brain. The change is essentially a small thickening of the membranes, either diffuse or circumscribed. Oppenheim says that aside from the syphilitic forms chronic meningitis is a rare affection, though it does occur in cases of chronic alcoholism.

He describes three cases, in all of which a necropsy was obtained. In all the thickening was confined to the arachnoid and pia mater, the dura mater escaping. The pia mater was not involved in the sulci nor between the cerebral hemispheres. It did not adhere to the brain snbstance, as is the case in general paralysis of the insane. The occipital lobes escaped in all cases. The symptoms bore a definite relation to the position and extent of the disease and depended mainly upon the pressure exerted by the thickened and contracted fibrous membranes. Headache, vomiting, Jacksonian epilepsy, tremors, paresis and incoordination, optic neuritis and delirium, or loss of memory or general mental failure, may be expected in such cases. The three cases recorded by the writer were accompanied by a high temperature near their termination.

SPORADIC CASES OF EPIDEMIC CEREBROSPINAL MENINGITIS, AND THE DIFFERENTIAL DIAGNOSIS FROM OTHER MENINGEAL AFFECTIONS.

By Dr. Holker (Berl. Klin. Woch., No. 34, 1907.) The author reports 15 cases with symptoms of cerebrospinal meningitis, treated in the Charite Hospital in Berlin. In nine of these cases the diagnosis presented considerable difficulties which are extremely apt to complicate these sporadic cases. In four patients having true epidemic meningitis, the meningococcus intracellularies could be demonstrated, but not until the fifth week in one instance. The diagnosis could be based upon the bacteriological findings as early as the first week of treatment in only six of the 15 cases. The demonstration of lymphocytes in the cerebrospinal fluid, which is usually regarded as characteristic of tuberculous or syphilitic meningitis, should not be considered as conclusive, since white blood corpuscles were likewise met with in epidemic meningitis.

BIRTH TRAUMATISM AND EPILEPSY.

By Dr. Volland (Allgem. Ztschrift. f. Psych). Among 1500 artifical labors, the author was enabled to determine the existence of epilespy in 45 patients, or 3% of the cases. Besides abnormal labor, faulty heredity assisted in the production of the epilepsy in 13 cases. Tuberculosis of the immediate or remote progenitors was noted in six cases. Only three patients presented changes of the skull, which could be positively referred to traumatic influences at the time of birth. In seven cases, without psychopathic heredity, there was infantile cerebral palsy, usually appearing in the course of the first to second year, together with

WEALTH:

The Reward of Thrift.

Without Gambling!
Without Speculating!!
Without Risk!!!

Invest your Savings in Government

PREMIUM BONDS

They are guaranteed as to principal and interest, consequently as safe as British Consols. They bear fixed interest in most cases from 2 to 4 per cent. and give the holders the chance of acquiring a fortune by periodical Drawings with Prizes from £24,000 down to £20.

A shoemaker whose wages were only 25/- per week has drawn

the First Prize of £24,000

of the Ottoman Government Railroad Bonds, which he bought only two months before for £6-10-0.

They appeal alike to the man with thousands and the man with shillings.

EASY TERMS (from 10/- per month) of Payment if desired.

Write a postcard for descriptive Booklet to

The Anglo American Finance Corporation

41, King William Street, London, E.C.

the epilepsy. The traumatic injuries at the time of birth apparently create a predisposition of the brain for the evolution of the encephalitic process. In proportion to the great frequency of epilepsy, however, birth traumatism plays only a minor part in the etiology of this disease. It is probably to be regarded as a preparatory cause of the subsequent epilepsy in a small number of cases.

—:o:—

SURGERY.

LARGE LOSSES OF PERITONEUM DURING OPERATIONS.

By Dr. T. V. Wenczel (Zent. f. Gynak) The author describes two cases from Barsony's clinic. The operations consisted in the removal by laparotomy of large colloidal cysts with extensive and intimate adhesions. In the delivery and removal of the tumors large areas of adherent peritoneum were torn off from the abdominal wall anteriorly. In the second case the peritoneum left was loose and had to be sewn at one to the point muscle. In both cases a Mikulicz tamponade gauze was necessary to control oozing. At the end of 14 days in of each case it was removed and replaced by a glass drain. Both cases were discharged from the hospital, after a rather protracted stay, with abdominal sinuses.

THE SURGERY OF THE THORACIC PORTION OF THE OESOPHAGUS.

Sauerbruch (Beit z. klin. Chir.) after an extensive and detailed history of all previously reported surgical work on the œsophagus, he describes the topography of the œsophagus in the dog and in the man, illustrating the description with excellent plates. The author then deecribes the technique of approach to the thoracic œsophagus (it will be remembered that Sauerbruch has developed the negative pressure chamber for use in performing intrathoracic operations). Oesophagotomy, œsophagogastrostomy, and œsophagectomy are described next in order, the paper ending with a description of three cases in which the œsophagus was resected and anastomosed with the stomach, in human subjects.

—:oo—

OBSTETRICS.

HEMORRHAGES OF THE CENTRAL NERVOUS SYSTEM IN THE NEW BORN AFTER FORCEPS DELIVERY.

By Dr. Couvelaire (Annales de Gyn. et d'Obstet., Tome IV., 1907.) Among 213 autopsies of newborn infants, the author observed seven cases of hemorrhage into the central nervous system after forceps injury, The 213 cases concerned almost exclusively infants born at full term. In contradistinction to the premature cases, in which hemorrhage into the brain is rather frequently met with after spontaneous labor, the author's clinical material included a very low percentage of hemorrhage after forceps injury; only a single one being found in the occipital lobe, after fracture of the skull. Five of the hemorrhages observed by the author were located in the bulb and the cervical marrow, one was found in the cerebellum. Accordingly, they originate in an indirect manner. A predisposition seems to be created by vascular changes, especially of a syphilitic character.

—:o:—

PATHOLOGY.

ERYSIPELAS.

L. N. Boston and A. E. Blackburn, Philadelphia. Journal American Medical Association.

From an analysis of all the records of cases of erysipelas treated in the Philadelphia Hospital during the past five years, 564 in all, Boston and Blackburn find the incidence and mortality of erysipelas are both decidedly affected by seasonal influences, being highest in the colder months. Age also is an important factor in the mortality, the latter being excessive in early infancy, least in childhood and gradually increasing from adolescence to old age, when it again becomes excessive. Among their cases both incidence and fatality were very markedly greater in the male than in the female. Their statistics also show that renal complications are to be expected with erysipelas; since of the 483 patients examined in this regard, 327 (67.7 per cent.) were voiding pathological urine. The mortality, however, did not apparently indicate that it was a very serious complication. In 66 of the cases the disease was limited in extent, in 486 it was extensive. The scalp was primarily involved in 12 cases, but of the 485 cases beginning in the face, in only seven did the disease extend beyond the hair margin, the scalp remaining unaffected. There was glycosuria in a certain percentage of the cases.

RHEUMATIC CARDITIS IN CHILDHOOD.

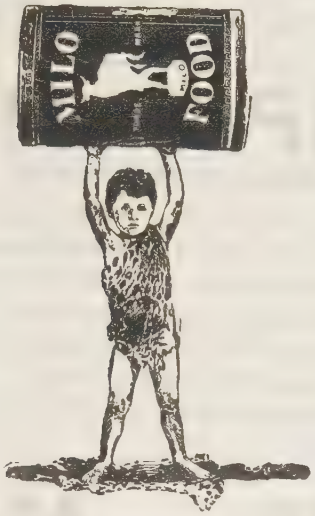
The pathology of rheumatic carditis presents four salient points: First, it is a carditis. In four autopsies the endocardium and myocardium were inflammed in each instance, and peri cardium three times. Second, the rheumatic infection is blood-borne, and attacks the heart just as it would any other organ, by way of its own special nutritional blood-supply, in this instances the coronary arteries. Third, the gravity of rheumatic carditis in the earliest or "childhood" stage lies mainly in the damage done to the muscle. Fourth, rheumatic carditis, like all rheumatic lesions, is remarkably apt to recur—or should it be said to recrudesce?

NESTLÉ'S MILO FOOD

A PERFECT NUTRIMENT

FOR INFANTS & INVALIDS

UNTOUCHED BY HAND.



A SPECIFIC AGAINST
INFANTILE DIARRHOEA

FOR HEALTH & STRENGTH

NESTLES

FOOD

FOR INFANTS

Recommended by all doctors.

E. Merck

DARMSTADT, LONDON, NEW YORK, ST. LOUIS, MOSCOW.

BROMIPIN MERCK.

An Organic Substitute for the Alkali Bromides. An Excellent New

ANTI-EPILEPTIC and SEDATIVE.

Proved by numerous cases to be the best substitute for Potassium Bromide. and free from unpleasant by-effects.

Most trustworthy remedy in Hysteria and Neurasthenia.

Supplied commercially, containing 10 per cent. or 33⅓ per cent. bromine.

10 per cent. Bromipin is usually selected for internal administration ; the dosage is a teaspoonful three or four times daily. In original Bottles of 100 grammes (about 4 ounces

33⅓ per cent. Bromipin is usually only given internally in the form of elastic capsules of 2 grammes each ; principally it is employed for rectal administration.

DIONINE MERCK.

A mild and pleasant Substitute for Morphia, freely soluble in water, with neutral reaction. It can therefore be employed for injections better than any other morphia derivative.

Excellent medicament in Laryngitis, Bronchitis, and the troublesome Cough of Consumptives. In breaking off the Morphia Habit an excellent substitute for morphia in corresponding doses, and much recommended for the treatment of Whooping Cough.

℞ Dionine, 5 grains.
Aq. Amygd. Amar, ½ ounce.
15 to 20 drops daily or every evening.

To be had in Bottles of 1, 5, 10, and 25 grammes, also in Tablet form ready for use ; one Tablet = 0·03 gramme (½ grain.)
In tubes of 25 Tablets.

STYPTICIN MERCK

NEW UTERINE HÆMOSTATIC.

Exceedingly prompt and reliable in action, and at the same time having a sedative influence in various forms of Menorrhagia and Metrorrhagia, especially

In **Profuse Menstruation,**
In **Irregular Periods,**
In **Hæmorrhages during Confinement,**
In **Hæmorrhages at the Climacteric.**

Also employed with success against Tuberculous Hæmoptysis as well as for persistent Hæmorrhage after extraction of Teeth.

Even when used continuously the preparation is harmless.

In Bottles of 1 and 5 grammes as well as in original Tubes containing 20 Tablets of 0·05 gramme (¾ grain) each, in form of 30 per cent. Lint and Gauze, an excellent remedy for local hæmorrhage (bleeding of the nose, hæmorrhage after dental operations, &c.) Dose for internal administration 5 or 6 Tablets daily.

For LITERATURE, SAMPLES, or any information apply to

E. MERCK, 16, JEWRY ST., LONDON, E.C.

Perhaps the infective agent lies quiet in the cardiac tissues, awaiting opportunity to reassert itself; perhaps it is stored elsewhere in the body, and issues thence at intervals to infect the heart again. This way of regarding rheumatic heart disease, that is, as a carditis principally important in childhood by reason of the muscular leisons, is confirmned by clinical experience. The typical physical signs—outward displacement of apex beat, widened area of impulse abnormally ready perception of the peristaltic nature of systole, increase of transverse cardiac dullness on both sides, the murmur of mitral incompetence, and the signs of raised pulmonary tension, indicated by tremendous accentuation of the pulmonic seccon sound, which is often doubled also—are all due to a dilat tion of both ventricles.

In both endocardium and pericardium, the relation of the rheumatic infection may, for convenience sake, be divided into three stages: the acute, the recurrent, and the cicatricial. The object of the paper is to show that for the production of those signs which are found in the great majority of cases of rheumatic carditis in childhood, it is quite unnecessary to blame the valves or the pericardium; the myocardial changes which are always present are enough to account for everything. C. Coombs, (Bristol Medico-Chirurgical Journal.

GANGRENE AND ECLAMPSIA.

Four curious and important cases are reported by the writer, in which the application of hot bottles, etc., during puerperal eclampsia was followed by a destruction of tissue at the spots where artifical heat had been applied and also at other places where pressure was exercised by one part of the body on another. In one case the patient lay with the left hand under her back, and in another case gangrene occurred on the heel of one foot which was crossing the front of the ankle of the other.

The resemblance of these cases to burns makes them of considerable medico-legal interest. That they were not burns, however, is probable from several reasons: (1) In every case the warmth was carefully tested on the persons of the attendants; (2) the difference between a normal temperature and that of the application was not sufficient to cause the injury; (3) there was not a correspondence between the character of the injury and the pathology of a burn, inasmuch as in the case in point the most intense injury, instead of being at the point of contact, was deep below the surface. Only a transient hyperæmia followed the removal of hot applications and then the process went on, constituting a sequence of clinical symptoms never seen after a burn of any degree, so that the heat alone could not be responsible for the condition.

That it was not due solely to pressure is suggested by the fact that the flesh at the point of contact at the bed was not affected, but only where the pressure was between two parts of the body. From this the writer concludes that pressure and heat must be associated with a third something which the patient herself furnishes, and suggests that the solution lies in the presence of a chemical irritant in the blood itself that so alters the character of that fluid as to cause the tissues to break down in the presence of a determining factor. He mentions the analogy of diabetes, in which slight inflammations may lead to diabetic gangrene, and that it is highly probable that a chemical irritant with approximately the same formula might be found circulating in the blood of the diabetic and of the eclamptic. He suggests acetones or diacetic acid, and refers to Stolz's eclamptic demonstration that there is an increased acetonuria during labor, especially in the primipara, which is greatly intensified during the first three days of the puerperium. C. B. Reed (Surgery, Gynecology, and Obstetrics).

THERAPEUTICS.

MAGNESIUM SULPHATE: ITS LOCAL VALUE.

Dr Henry Tucker reports the result of 26 cases in whom he has employed the local application of a saturated solution of magnesium sulphate with most excellent results for the relief of pain, where other local applications were found almost valueless. He employed it in cases of gonorrhæal epididymitis, orchitis chancroidal bubo, acute articular rheumatism, gonorrhæal rheumatism, tubercular peritonitis, facial erysipelas, alcoholic and traumatic neuritis, sprained ankles, and simple contusions.

Technique.—The application consists of a saturated solution of magnesium sulphate in water.

This solution is applied on from fifteen to twenty thicknesses of ordinary gauze. This is saturated with the solution at least every half-hour, or as often as necessary to prevent drying, depending on the time of the year and the temperature of the room. The gauze is not removed until the end of twenty-four hours; the parts are then washed with water and the dressing reapplied if indicated. There is then found to be a marked blanching of the surface, which is, however, not followed by any deleterious effects.

The attendants who made the application complain that it causes a partial loss of sensation accompanied by tingling of the hands and arms, which persists for from twelve to twenty-four hours.

In the treatment of inflamed testicle, elevation was not used other than to prevent wetting of the bedclothes.

Some cases, as noted in the preceding report, were kept in bed, while others were allowed the freedom of the ward.

In many cases no internal medication was given.—The Therapeutic Gazette.

ACTION OF THE THYROID.

It is certain that the system of the thyroid gland accomplishes, its effects in the organism in a chemical way. According to some, the thyroid delivers certain substances into the circulation which "detoxicate" the toxins. (Compare Blum, Pflueger's Archiv, 105.) Another and more prevalent view which I think has a higher degree of probability is, that the bodies which are elaborated in the thyroid go to certain organs and influence their metabolism. What these different substances are is not as yet known with certainty. The substance sought is perhaps, in reality a multiplicity of bodies. We know one, which comes near to globulin. (Compare Oswald, Hofmeister's Beitraege, 545, p. 2. The same in Virchow's Archiv, 169, p. 444.) It is possible that the active principle contains albumen and iodine.

It is necessary for the development of the entire body, most of all the skin, the mucosæ, the bones, and the nervous system, and with it for the psychic portion (the intellectual and moral parts) that the thyroid bodies should be secreted into the circulation continuonsly. Should these fail, or fail to be present in sufficient quantities, or be altered in form, then the entire organism suffers grave changes in its numerous organs. A thorough description of these wonderful phenomena, however, would lead us too far.

When there is deficient thyroid activity in youth, then there always follows defective growth of the bones in length, due to a modification of the processes at the epiphysis, which normally control osseous development. It is to noted that in fœtal life a defficiency of thyroid does not affect the bones. (Compare Dieterie, Virchow's Archiv, 184, p. 56) The sexual organs suffer in their development. The skin changes in the manner it does characteristically in myxœdema; hair and nails become diseased; the circulation is lowered; the heart-beat becomes slower; the temperature is lowered. Physically the individual thus affected changes in all gradations and varities from apathy and indifference down to deep melancholy and complete idiocy.—Clinical Medicine.

UROTROPINE AS A SOLVENT OF URIC ACID CALCULI.

By Dr. K. B Kundu, Chittagong.—Case I.—About three years ago a patient, fifty-five years of age suffered from vesical calculi, which were removed by lithotrity. The pieces of stone, on being examined, were found to be uric acid calculi. Two years after this the patient complained of symptoms which he had when he suffered from vesical calculi. He was not willing to have his bladder sounded as the symptoms were not very distressing. He was asked to send the urine for examination. On testing, uric acid was found in abundance. Urotropine was prescribed. After using the medicine for a fortnight he felt well, and the urine was found to be quite normal. The patient, however, used the medicine for another fortnight, and since then has had no complaint.

Case II.—A gentleman, about forty years of age, sent for me at night as he was suffering great pain. The pain occurred suddenly, and darted towards the groin, testicle, and thigh, accompanied by nausea and profuse perspiration. I had to use morphia to give him relief from the excruciating pain, and I asked him to send the urine to me for examination. I also instructed him to notice carefully if he passed any calculi. Next morning he sent a small calculus about the size of a mustard seed and a bottle of urine for examintion. Uric acid was found to be a uric acid calculus. In this case uric acid in abundance. The small calculus was examined and found acid was passed in the form of small red crystalline masses like grains of cayenne pepper. Several times the urine was examined immediately after it had been passed, and free uric acid was found. I first prescribed borocitrate of magnesium, which is recommended in Merck's Manual of Materia Medica to dissolve uric acid calculi, the formula of which is magnesii carb., dram. 1; acid citric, drm. 2; sodii biborat., drm. 2; aquæ 8 fl. oz. M. Sig.: 2 drms. I.I.D. As long as the patient used this medicine he was much better, and there was a marked decrease of uric acid in the urine in fact, the urine was almost normal; but as soon as he stopped the medicine, all the symptoms returned. Urotropine was then prescribed, which was used for a month, and since then he has had no complaint. The urine on being tested at various times was found normal.

Case III.—In September, 1906, a European lad, about eight years of age, complained of urethral discharge. He had phimosis and balanitis at the time, and circumcision was performed, which cured the balanitis, but did not stop the discharge. About a month or so after the circumcision the discharge stopped, but since then he complained at times of inability to micturate. The catheter was used on each occasion to relieve the bladder. The urine contained a large quantity of red-coloured mucus, which, on standing, formed a distinct layer at the bottom of the vessel. The boy was treated for worms, but without effect, and was at last sent to the Medical College, Calcutta, where he was examined but no stone was found. A German-silver catheter, No. 6, was passed and kept in situ for forty-eight hours. The case was then diagnosed to be impacted calculi in the neck of the bladder and was discharged with the following prescripton:—

R Acid boric	...	...	... gr. v.
Salol ...	...	...	... gr. ij.
Urotropine	...	...	... gr. ij.

Sig.: Thrice daily.

I did not have an opportunity of observing the nature of these calculi, nor to examine the urine, as the boy was sent to school at Darjeeling; but as uric acid calculi is the most common cause, I attribute the boy's condition to it. I have been told by his parents that he does not now complain of anything.—Practical Medicine.

HOMMEL'S Hæmatogen

CONTAINS NEITHER ALCOHOL NOR ANTISEPTICS

A combination of 80 parts purified and concentrated Hæmoglobin with 20 parts chemically pure Glycerine and Aromatic Flavouring.

The best of all the existing preparations of Hæmoglobin. More efficacious than Cod-Liver Oil or the ordinary manufactured preparations of Iron. Very strengthening both for Children and Adults. An energetic Blood Former. Increases the Appetite. Aids Digestion.

☞ Extremely useful in **Rickets, Scrofula, General Debility, Anæmia, Weak Heart, Neurasthenia,** and Convalescence from illness such as **Pneumonia** or **Influenza.**

☞ Unsurpassed as a **Strengthening Restorative in Diseases of the Lungs.** Has a very agreeable taste, and is taken with the utmost relish even by Children.

FREE FROM BACTERIAL GROWTH. UNCHANGED BY KEEPING.

These important qualities are guaranteed by using the highest permissible temperature in the process of manufacture (130° to 140° Fahr. for 24 hours). No guarantee of this description is possible for preparations made by a cold process with ether.

☞ **In prescribing, always state "HOMMEL'S" Hæmatogen as spurious imitations are offered.** ☜

ONLY SUPPLIED IN FLUID, NOT IN CAPSULES OR OTHER FORMS.

Infants - - Take from Half to One Teaspoonful twice a day in milk.
Children - - „ One or Two Dessertspoonfuls daily, either pure or mixed with any convenient liquid.
Adults - - „ One Tablespoonful twice a day before the two principal meals.

☞ **SAMPLES AND LITERATURE,** *gratis and carriage paid, on application.*

NICOLAY & CO., 36 & 36a, ST. ANDREW'S HILL, LONDON, E.C.

AGENTS FOR NORTH AMERICA: LEHN & FINK, WILLIAM STREET, NEW YORK.

EDINBURGH

POST-GRADUATE VACATION COURSE IN MEDICINE.

(In connection with the University and Royal Colleges).

The **COURSE** will extend from the 31st August to the 26th Sept. 1908.

In addition to the general programme a special four weeks **SURGICAL COURSE** has been arranged for.

For **SYLLABUS** and further particulars apply,

Secretary, University New Buildings, Edinburgh.

"APENTA"

NATURAL APERIENT WATER IS THE BEST ELIMINANT.

GOLD MEDAL, St. LOUIS EXHIBITION, 1904.

ORDINARY DOSE.—A Wineglassful before Breakfast.

TRIED and TESTED SPECIFICS.

THOUSANDS of TESTIMONIALS from all PARTS.

VIOLET CURES HEADACHE

Of every description—whether Nervous, Hysterical, Bilious, or Dyspeptic. Safe, certain, speedy. Also gives positive results in Neuralgia.

A packet of Violets with full directions: Re. 1. Per doz., Rs. 11.

ELLWOOD'S

"TRESSINE"

THE GREAT HAIR-PRODUCER & RESTORER.

Restores and Preserves the hair. Promotes growth and renders it beautifully soft. Arrests the fall and strengthens the roots. Removes dandruff and allays all irritation. Is specially prepared and perfumed. Restores grey hair to its natural color, keeps the scalp clean and allays irritation. Tressine is a perfect Liquid, and is quite free from oily disagreeableness. Per bottle, Re. 1-4. Per doz., Rs. 13-8.

ELLWOOD'S

Cod Liver Oil Cordial

is a combination of the purest extract of cod livers, soluble iron, and the most reliable tonics—agreeably put up with carminatives, constituting a mild and grateful cordial. Refreshing, agreeable and stimulating.

Price Re. 1 per bottle. Per doz., Rs. 11.

Pulmonary Consumption.

CONSUMPTION INHALATION CURE.—Recommended as a certain remedy in the first and second stages. Is based on scientific reasoning and principles, and is an embodiment of the results of modern investigation. It kills the germs (bacilli), checks the progress of the disease, and prolongs life even in the most advanced and hopeless cases of tuberculosis and consumption. Per phial, Rs. 5. Per dozen, Rs. 55.

ELLWOOD'S PILLS

Are "brisk" and "direct" in their operation, being unattended with any disagreeable effects such as griping, nausea, vomiting, pain, &c.

These invaluable Pills are prepared with the greatest care, and have the remarkable property of neither weakening the system nor causing constipation immediately after. For Dyspepsia and Torpid Liver they can be confidently relied on as the best Family Medicine to have handy in the house. Price, Re. 1 per phial. Per dozen, Rs. 11.

FOR THE HOT WEATHER.

PRICKLY HEAT POWDER.—Instantly relieves the unpleasant itching consequent on the appearance of prickly heat. A boon to worried adults and fractious children. Per bottle, Re. 1. Per dozen, Rs. 11.

THE DRUNKARD'S HOPE:

EBRIONE.

THE NEW INEBRIETY CURE.—This preparation is prescribed with the most wonderful effects in the treatment of persons suffering from the constitutional and other results of excessive indulgence in alcoholic liquors. It may be administered unknown to the patient mixed in his (or her) usual drink. It creates an intense "loathing" for spiritous liquors of any kind. Try it on those near and dear to you and you will be astonished as to its marvellous effects. Per bottle, Rs. 5. ½ doz., Rs. 14; ¼ doz., Rs. 28; doz., Rs. 55.

ELLWOOD'S

SURF SEA SALT.

Recommended by the Highest Medical Authorities.

Cannot be over-estimated for promoting the health, strength, growth, and good looks of children. Is actually made from the sea and possesses all the medicinal and curative virtues which render sea bathing so beneficial, both in health and sickness from infancy to old age Beware of worthless imitations Analyses 99 $\frac{99}{100}$ per cent of pure Salt, the crystals are easily dissolved, and much more convenient to use than any other brand. Per Tin, Re. 1. Per dozen, Rs. 11.

Piles. Piles. Piles.

ELLWOOD'S PILE-CURE PILLS.—Immediate relief. Operations are rarely necessary if these Pills are used regularly. They cure Piles of every form. Neat and clean. Pure and sure. Per Phial, Re. 1-8. Per doz., 16-8.

ELLWOOD'S PILE OINTMENT.—For Blind, Bleeding, Ulcerated, and Itching Piles. It absorbs the tumors, allays the itching at once, acts as a poultice, gives instantaneous relief. Per Pot, Re. 1. Per doz., Rs. 11.

WEAK MEN.

Our world-renowned VRRILL is the ideal cure for nervous and physical debility, exhausting drains, mental dejections, loss of memory and energy, vital exhaustion and the thousand and one baneful evils due to early errors and excess. VRRILL is HEALTH! VRRILL is LIFE!! VRRILL is pleasant, prompt and positive. In one shilling (12 Annas) phials. Per dozen, Rs. 8-8.

ELLWOOD'S CURE FOR HYDROCELE.—Warranted speedy, painless, and radical. For any size. The very first application results in abstraction of fluid, soaking of bandages, absolute relief, and decided reduction in size and weight. Painful, risky operations avoided. No laying up or stopping of work. No case hopeless. Thousands cured.—Re. 1-8. Per dozen, Rs. 16-8.

ELLWOOD & Co., Globe Chemical Works, CALCUTTA.

ADVERTISEMENT.

MESSRS. LAWRENCE & MAYO, Ophthalmic Opticians of London, Calcutta, Bombay, Madras and Rangoon, prepare at their Lens Works, any combination of Lenses and Prisms within three days of receipt of the formula.

Correspondence.

Audi Alteram Partem.

LEPROSY.

TO THE EDITOR, THE INDIAN LANCET.

SIR,—By all means and in every way possible let us ameliorate the lot of these poor stricten fellows beings. But are we going the right way about it. And in the methods we adopt are we safeguarding at the same time the interests of the general community as regards the public health? Now is the time to consider these questions when appeals are being made for funds, funds, to erect and support homes and settlements in which to gather lepers so long as these lepers like to stay in them. For be it observed none of these homes are houses of detention, and a leper cannot be kept in confinement against his will merely because he is a leper. The lepers can come and go as they like, and as a matter of fact they do in Calcutta, and are to be found in the market places and all other public resorts spreading the germs of their loathsome disease wherever they go.

I am touching upon this subject now because the Indian leper is being prominently brought before the public in the appeal now being made in the London "Times" by the Vice-Presidents of the Mission to Lepers in India and the East for funds to carry on their work. They maintain 50 asylums for lepers and 20 homes for their untainted children, and in these asylums some 4,000 sufferers are collected together, who otherwise would be a danger and an offence to the community, and they are sheltered and fed and medically relieved. The Rev. Mr. Powell also, who is in charge of a Leper House in South India is in Calcutta collecting funds to support 116 lepers under his care. There is a Conference now going on at Purulia, of Leper Asylum Superindents, summoned by the authorities of the Mission to Leper in India referred to above. These Superintendents, it is said, represent 22 asylums sheltering 3,400 lepers, and it is also affirmed that nearly 5,000 lepers are sheltered in asylums in India which are maintained and aided by the Mission.

Well, after providing funds for the shelter and the feeding of 7,500 lepers, what has been done towards the extirpation of leprosy amongst us in India? Practically nothing. We are content to look upon the loathsome leper as an incurable, and are content that at least 100,000 of these human disseminators of leprosy should walk about and mix with the population of India. To segregate 7,500 of them may be a charity to these 7,500 and I suppose it is, and unquestionably the Mission does good to those who subscribe to its funds in awaking their kindly feelings and providing an outlet for their charity. But when all this is done, the Leper Question itself is left untouched. I have spoken of 100,000 as being as the number of lepers in India. The whole being is a guess, some affirm the real number is nearer 500,000. But my point is that if leprosy is to be considered an incurable disease of an infectious or a contagious order, or both, little missions, good and useful in their own way to the little leper communities they shelter, are of little use in extirpation the disease amongst us. On the other hand gatherings of say 100 lepers in one shelter or home, will only tend to foster the breeding of the loathsome germs to be disease scattered abroad elsewhere. The question is too large a matter to be peddled with by little Societies. The Government must face the question how leprosy is to be extirpated in India.

Why not have a Leprosy Commission composed of the best medical scientists that can be obtained at home? Men like these have already got upon the line of curing and preventing, other diseases which aforetime were considered to be incurable, by tracking their deadly germs to their lair. And why cannot the same be done with leprosy? It can. In the olden days lepers were compulsorily segregated and allowed to die out. Edinburgh had its Leper Town in these days. It is now known as the suburb of Liberton. If the Government find out that compulsory segregation in suitable districts remote from cities, is the only way of wearing out the plague, let it be done. But we have after that to find out the cause of leprosy in order that the knowledge of preventive measures may be made known to the public. A good leprosy Commission might do incalculable good in this direction. But the Government are tied neck and heels by the opinions of their Medical Department, and any suggestion that does not emanate from their own inner consciousness is deemed unworthy of regard. We will have to move John Morley in this matter.

A leper asylum will be needed for the patient investigation of the disease. That, however, will be a long time in coming. The Government will have plenty of excuses for not bringing such an Institution into existence. Want of cash very likely will be the first excuse. But if that most superior civil servant Mr. Collin, the Commissioner of the 24-Pergunnahs, wants a residence worth Rs. 15,000 of rent per annum for Rs. 3,6000, the Government of Bengal cheerfully chuck down Rs. 2,00,000 to secure it for him. If the same individual demands

a private steam launch mainly for his own pleasure, then Rs. 65,000 is budgeted for it and it is kept up for him at an expense of at least Rs. 200 a month. Then he thinks he would like to save his own horse flesh, and demands a superior motor-car, and the Bengal Government complacently and obligingly give Rs. 10,000 to provide his honour with a car. This is the spirit which is abroad at present, the prodigal spending of the people's money on useless luxuries for highly paid civilians; and poor people crying out for bread by reason of famine.

But return to the leper, I referred last week to the application made to the Government of India by a properly qualified medical man, to give him facilities for treating a certain number of lepers by specifics of his own finding out, in order that he might demonstrate his method of cure. "Can any good come out of Nazareth?" "He followeth not with us," and sundry such epithets are always the answers given by the heaven-born medical authorities. The application was sent down by the Imperial Governmont to the Government of Bengal, and I think from his past experience, that the Lieutenant-Governor knew when he forwarded it on to his Medical Department, it had got its quietus. However, arrangements are being made for the treatment of five selected cases of true leprosy by Dr. Baldwin's methods, and under strict medical supervision, and after a sufficient period has elapsed to give the treatment fair play the results will be announced.

Yours etc.,

CAPITAL.

THE TSE-TSE FLY IN INDIA.

To THE EDITOR, THE INDIAN LANCET.

SIR,—Mr. H. Maxwell-Lefory, M. A., F. E. S., F. Z. S., Imperial Entomologist, says that the part played by tse-tse flies (Glossina spp.) in the dissemination of a sleeping sickness and other diseases in Africa, is now so well ascertained that fears have been expressed that, should sleeping sickness be introduced into India, these flies might act as transmitters of the malady and India might be exposed to the ravages of a disease of equal virulence with plague. Cases of sleeping sickness have been reported in India, and there is little reason to doubt that coolies returning from Uganda may have the organism in their blood. But as regards the fly, no means whereby it could be introduced can be seen; its distribution in Africa is extremely limited, and it will not leave its usual haunts except for short distance; the possibility of its being carried to India is so remote as to be at present negligeable. A systematic study of biting flies has been and is being made, and we may hope soon to be in a position to know all the flies of importance and to be able to rear them artificially and provide the material for further study. At present it is not known that any Indian fly will be capable of assuming the function of Glossina; there is every reason to believe that Glossina itself is absent from India, and we have no ground for fearing its introduction; it is also satisfactory to know that the matter is being very closely watched and studied.

Yous etc.,

R. F.

PLAGUE AND FLEAS.

A NEW THEORY.

To THE EDITOR, THE INDIAN LANCET.

SIR,—Drs. Hossack and Pearse's Calcutta Plague Report for last year, published here today, shows that in the case mortality has risen to no less than 98·1 per cent. and that the destruction of 1,22,000 rats has not materially affected the rat population of the city, the authors point out the comparative scarcity of rat fleas in Calcutta and detail interesting experiments to show the unwillingness of those fleas, which are found, to feed on the human subject even when starving.

They point that out of thirty men who collect rats for the reward, storing them in their houses, only one contracted plague and he lived in a plague centre—while none of the seven men engaged in handling and counting rats at the depots suffered in any way.

They conclude that an acute epidemic of plague is possible even in the absence of fleas.

Yours etc.,

S. W. K.

Those drugs which invariably effect the immediate relief of menstrual disturbances by acting directly, and in an agreeable manner, upon the reproductive apparatus, are collectively presented in

ERGOAPIOL (SMITH)

The preparation exerts an impressive anodyne and sedative effect upon the uterus and ovaries, and imparts vitality and functional activity to the entire generative system. While the function-promoting action of the preparation is surprisingly prompt, no untoward effects attend its administration.

ERGOAPIOL (SMITH)

IS OF INESTIMABLE IMPORTANCE IN THE TREATMENT OF

AMENORRHEA, DYSMENORRHEA

AND OTHER

MENSTRUAL IRREGULARITIES

DOSE.—ONE TO TWO CAPSULES, THREE OR FOUR TIMES A DAY, ACCORDING TO THE EXIGENCIES OF THE INDIVIDUAL CASE.

Ergoapiol (Smith) is marketed in metal boxes containing twenty capsules. The preparation is obtainable at all prescriptionists.

LITERATURE.—PAMPHLETS BEARING UPON THE THERAPY OF THE PREPARATION WILL BE SENT, POST PAID, ON REQUEST.

MULLER MACLEAN & Co.
New York, U. S. A., Export Representatives.

MARTIN H. SMITH, COMPANY,
New York, U. S. A.

It's the Quality that tells.

van Houten's

IS THE

FINEST COCOA IN THE WORLD.

SOMATOSE (MADE FROM BEEF)

The most Powerful Food known to Science. A true Meat Nutrient, and is especially valuable in all cases of

FEVER, DYSENTERY and INFLUENZA.—*Vide "Lancet" of Sept. 30th, 1899.*

Is acknowledged by Eminent Medical Authorities at Home and Abroad to be THE IDEAL FOOD FOR INVALIDS AND CONVALESCENTS.

It is an almost TASTELESS and ODOURLESS POWDER.
It contains nearly 80 per cent. of MEAT ALBUMEN.
It acts directly as a TONIC and creates an APPETITE.
It is NOT a DRUG, but a THERAPEUTIC FOOD.
It is easily SOLUBLE in Water, Milk, Soup, Coffee, Cocoa, &c.

SOMATOSE IS ALSO SOLD AS A LIQUID

BEING A MORE CONVENIENT FORM OF ADMINISTRATION

IRON-SOMATOSE

Contains the Tonic Qualities of IRON, combined with the Albuminous Substance of MEAT.
Causes NO GASTRIC DISTURBANCES or CONSTIPATION.
Does NOT AFFECT THE TEETH.
Is a FREELY SOLUBLE preparation of IRON.

MILK-SOMATOSE

Contains the ALBUMINOUS MATTER OF MILK, combined with 5 per cent. of TANNIC ACID.
Is slightly ASTRINGENT and NON-IRRITANT.
Is most suitable for STRENGTHENING WEAK DIGESTIVE ORGANS.
Is ESPECIALLY VALUABLE for INFANTS and CHILDREN.

NOW USED IN ALL THE PRINCIPAL CIVIL & MILITARY HOSPITALS.
Sold by all Chemists.

FULL PARTICULARS FROM—

THE BRITISH SOMATOSE CO., LTD., 165, Queen Victoria Street, LONDON, E.C.

Agents for INDIA, BURMA & CEYLON:

FARBENFABRIKEN BAYER & CO., LD., Hornby Row, FORT, BOMBAY.

LADY MINTO'S INDIAN NURSING ASSOCIATION.

To the Editor, The Indian Lancet.

SIR,—The report of the first year's working of Lady Minto's Indian Nursing Association has been published. When Lady Minto was still in England, she was approached by Members of the Home Committee of the Punjab and Up-Country Nursing Associations who expressed a desire to join any scheme which would secure proper nursing for all classes of Europeans in India. These two institutions work within a limited area and it was realised that a scheme of wider scope would have better chances of support. The existing Associations were well organized, it was explained, but crippled for want of funds, and it was thought it would be a great mistake to set up a rival organization. It was felt, therefore, that if they would agree to amalgamate with a new and wider Association under the guidance of a Central Committee in India, it would be at once feasible to found a Society on entirely private lines by simply enlarging and making use of the existing organization, whilst the main difficulties in connection with the new scheme would be removed. This excellent foundation having been arranged, the financial aspect was carefully considered. A sound financial basis being pre-eminently essential, it was decided to establish an Endowment Fund, and to make a general appeal, both in India and in England, for funds. A generous response was received to the appeal for funds in India, while a fair response came from Home, and three and a half lakhs were invested in the first year for the Endowment. The report of Mrs. Davies, the Chief Lady Superintendent, on the progress of the Association during the first year describes it as highly satisfactory and most encouraging from every point of view. The favourable reception accorded to the movement from the first has been well maintained, and has roused a healthy interest in the various Provinces where branches have been or are being formed. Remarkable have been the rapidity and cordiality with which the Provinces have inclined to the new scheme, and it would seem that the need for a well-organized service had become more keenly felt than ever, for, as a result, at the close of 1907, five different branches were working energetically, whereas at the beginning of the year two Centres alone represented the then area of operations. The Punjab Branch is the most forward, for the work has been going on there for some years under other names, but the most flourishing branch is that of Eastern Bengal and Assam. A new Branch is to be established in Burma and, with the formation of a Branch in Rajputana, all the Provinces originally suggested will have their Centre established practically within a year of the initiation of the nursing scheme. The Association was so long needed in India that its success was a foregone conclusion, and as its value becomes better realised by individuals its scope must grow rapidly. A scheme enabling both rich and poor to benefit by a sliding scale of fees according to subscriptions was published, and this scale is universal throughout the branches of the Association. It is now possible for any one, whose income does not exceed Rs. 500 per month, to obtain the services of a highly trained nurse for the small sum of Rs. 2 per day on payment of an annual subscription of Rs. 10 to the Provincial Branch. If only for self protection, therefore, the fund should find ever increasing support.

Yours etc.,

E. H.

THE DRUG HABIT.

To the Editor, The Indian Lancet.

SIR,—As we have mentioned before the agitation against the traffic in opum has had anything but a beneficial effect on the Burmese, Native and Chinese communities of this city. What advantage has been gained by our having apparently reduced the number of those who use the drug, if instead they resort to more harmful poisons such as morphia and cocaine? As regards the latter drug, the latest seizure shows that it continues to be imported in large quantities into Rangoon and, from the fact that a single person finds it profitable to lay out such a large sum as Rs. 30,000, it proves that the traffic in it must be enormous. And yet the use of the drug has not been a common habit among the Burmese for a long period, and so far as we can judge it was only when they found that opium was becoming more difficult to procure than before that they became addicted to the cocaine habit. Still more general and still more harmful is the practice of injecting morphia, the sale of this drug forming the main source of subsistence of many a native quack practitioner, one of whom, within our recollection, was arrested with over 7,000 doses in a hand bag. Surely the morphia habit is far more noxious than the use of opium, the former being the essence of the latter. Could it be considered matter for congratulation that a person who had been apparently cured of drinking beer to excess was found to have resorted to alcohol instead?

Yours etc.,

A. M. S.

SAL HEPATICA

EFFERVESCENT SALINE LAXATIVE.
URIC ACID SOLVENT.

A combination of the Tonic, Alterative and Laxative Salts similar to the celebrated Bitter Waters of Europe, fortified by the addition of Lithia and Sodium Phosphate. It stimulates the liver, tones intestinal glands, purifies alimentary tract, improves digestion, assimilation and metabolism. Especially valuable in

Rheumatism, Gout, Bilious Attacks and Constipation.

Most efficient in eliminating toxic products from intestinal tract or blood, and correcting vicious or impaired functions.

WRITE FOR FREE SAMPLE.

BRISTOL-MYERS CO.
Brooklyn-New York, U.S.A.

On sale by Jobbers and
Thomas Christy & Co., London, Eng.

DEFECTIVE COW-SHEDS.

HEALTH OFFICER'S SUGGESTIONS.

TO THE EDITOR, THE INDIAN LANCET.

SIR,—At a recent meeting the General Committee of the Calcutta Corporation were asked to consider a note by the Health Officer on the prevention of cruelty to animals in licensed sheds.

The Health Officer's note is as follows :—The acts of cruelty to cattle committed in sheds are—(a) Deficient supply of air, the inhalation of foul gasses from decomposing filth on which the animals have to lie. (b) Continual life in the shed without ever being taken out for exercise, sunlight or fresh air. (c) Over-crowding of animals so that they cannot lie down to rest properly and have to remain almost constantly on their legs. (d) The starving of calves as they are of little value but cost the loss of milk to feed. (e) The phooka process to induce a readier or larger flow of milk. Of these acts of cruelty only those dependent upon insanitary conditions, viz. (a) and (c), come under our control. These are being remedied by degrees as fast as our staff can cope with them and as the law allows. As far as I understand the operations included under the phooka process, but of which there are different descriptions, I think the amount of cruelty inflicted is probably overrated, as a process, giving anything like severe pain or irritation would defeat its own object. For the starving of calves, a well-known offence, and for perpetual life in the shed, also well-known, I hardly know what to advise. Starved cattle in famine districts are, I believe, impounded or killed. This measure might be adopted to meet this crime, but for imprisonment I know of no remedy. I can only suggest that if it be possible licensees should be compelled to remove their animals to the open air for at least two hours or more every week and the shed thoroughly cleansed down. By-laws under Section 559 (27), (29), and (30) might possibly be made with regard to this imprisonment and also the phooka process.

The Committee resolved that the consideration of this matter be postponed until the by-laws come before them.

Yours etc.,

W.

THE PROTECTION OF PLAGUE FUGITIVES.

TO THE EDITOR, THE INDIAN LANCET.

SIR,—May we put in a word on behalf of the people who have already gone out of Bombay and will soon be going on account of plague, and request the Government to provide the requisite police for their protection? The Goregaum dacoity was of a most daring character and not a year passes without dacoities, robberies and burglaries in the suburbs of Bombay during the plague season. It is a pity that the methods of our Government are not elastic enough to enable villagers to protect themselves against a band of robbers, or even against a single desperate Kabulee or Pathan. One form of showing practical sympathy with a plague-stricken population is to encourage them to evacuate infected localities and to afford them needed protection against robbers and dacoits. Even our venerable Manu recommended in days of old the organisation of single villages and groups of villages in tens and twenties for the protection of life and property. Have we improved upon his system? We are afraid not. A single desperate armed robber can work unheard-of havoc amongst our unprotected and disarmed villagers. If we cannot improve upon Manu's recommendation, let us at least rise equal to it. We invite His Excellency's serious attention to this urgent question of providing for the adequate protection of temporary sojourners in the suburbs of Bombay, and of adopting similar measures in the moffussil.

Yours etc.,

C. W. S.

THE LATEST CURE FOR CONSUMPTION.

TO THE EDITOR, THE INDIAN LANCET.

SIR,—Of the two new things which we have just got one is coming over from Paris and the other is British-born, being, one believes, the property of Messrs. Swan and Edgar. The first is the very latest cure for consumption (and several other diseases) and is the discovery of M. Rene Quinton, the well-known biologist. M. Quinton seems to have bethought himself of the theory that all life originally arose in the ocean and to have drawn from that the large deduction that our blood is therefore largely simply sea-water. The next step is easy and on a par with those cures which really do result from sending a patient to his native air. M. Quinton makes injections of sea-water under his patients' skins, believing that it is indispensable to the life of our organic cells, and it is said that various maladies, including consumption and gastro-enteritis, have yielded in a most encouraging manner to the treatment. The fashionable women of Paris are helping him at his free dispensary in the Montparnasse quarter, simply because they must throw themselves into the thing that is new, especially if there is any of the cheap glamour of charitableness over it, but that need not affect the value of the discovery—if it proves to have permanent value. Several Paris hospitals have taken up the idea, and the Duchess of Sutherland is going to open the same kind of dispensary in Scotland.

Yours etc.,

W. G. L.

Wanted known, that a Dispensary, where all medical and surgical accessories are available has been opened at 3, Wellesley Street, under the name of Ellwood & Co.

Prescriptions dispensed day and night, and urine analysis done.

In all disorders of the respiratory tract in which inflammation or cough is a conspicuous factor incomparably beneficial results can be secured by the administration of

Glyco-Heroin (Smith)

The preparation instantly diminishes cough, augments expulsion of secretions dispels oppressive sense of suffocation, restores regular, pain-free respiration, and subdues inflammation of the air passages.

The marked analgesic, antispasmodic, balsamic, expectorant, mucus-modifying and inflammation-allaying properties of

Glyco-Heroin (Smith).

explain the wonderful curative action of the preparation in the treatment of

Coughs, Bronchitis, Pneumonia, Laryngitis, Pulmonary Phthisis, Asthma, Whooping Cough

and the various disorders of the breathing passages.

Glyco-Heroin (Smith) is admittedly the ideal heroin product. It is superior to preparations containing codeine or morphine, in that it is vastly more potent and does not beget the by-effects common to those drugs

DOSE—The adult dose is one dram, repeated every two or three hours, For children of more than three years of age, the dose is from five to ten drops.

Glyco-Heroin (Smith) is marketed in one-pound bottles, thus enabling the physician to prescribe whatever amount the individual case may require. The prevailing prescriptions are for three ounces. The preparation is obtainable at all prescriptionists.

LITERATURE.—Exhaustive literature bearing upon the preparation will be sent, post paid, on request.

MULLER, MACLEAN & Co
New York, U. S. A., Export Representatives.

MARTIN H. SMITH, COMPANY
New York, U S A

Schering's

Argentamine. Ten per cent. solution of Silver Nitrate in Ethylenediamine. An organic Silver Salt possessing the property of penetrating very deeply into the tissues. Its use is not accompanied by the many inconveniences to the patient which are found with the ordinary Silver Salts.

Chloralamid. Superior hypnotic without harmful or unpleasant by-effects, having the following advantages over Chloralhydrate:—Its action develops more gradually. The depressing effect of Chloral upon the heart is counteracted by the action of the formamide contained in Chloralamid. It does not cause headache. Chloralamid should on no account be dispensed in hot solutions.

Lævulose. Is fruit-sugar for Diabetics, being perfectly assimilated, and constitutes therefore a superior dietetic also for consumptive patients.

Phenocoll. Soluble Phenacetine. A valuable anti-pyretic, anti-rheumatic, and anti-neuralgic. Recommended in malarial fever. Harmless to the action of the heart and circulation of the blood.

Piperazine. Freely dissolving urinary deposits, is promptly eliminated by the kidneys, and perfectly harmless. Strongly recommended in all cases of uric acid diathesis.

Sublamine. A preparation containing Mercury Sulphate and Ethylenediamine in chemical combination. By the presence of Ethylenediamine the irritating action to the skin is entirely avoided, and, what is equally important, a most phenomenal penetrative power is secured for the metallic disinfectant, inasmuch as the presence of Ethylenediamine prevents the coagulation of the albuminous substances of the skin usually produced by metallic agents, and thus permits of easy and deep penetration of the Sublimate without any inconvenience. Recommended for thorough hand disinfection. [of Berlin.
Registered Trade Mark. Manufactured under the control of Prof. Dr. A. Nicolaier,

Urotropine. A valuable urinary antiseptic and uric acid solvent, very efficient in all suppuratory diseases of genito-urinary tract, pyelitis, cystitis, with ammoniacal decomposition of the urine, phosphaturia, and also in gouty and rheumatic affections, where active elimination of uric acid and the urates is required. Highly recommended in typhoid bacteriuria as a prophylactic against the spread of typhoid fever.

FULL REPORTS ON APPLICATION TO
A. & M. ZIMMERMANN, 3, Lloyds Avenue, London, E.C.

WE are walking in the dark when we prescribe a preparation of unknown strength. We are compelled virtually, to make a physiological test of the drug upon our patient. The manufacturing pharmacist should do this work for us. He has facilities that are not available to the physician and the dispensing pharmacist. Let the manufacturer of drug extracts standardize his preparations by chemical assay when possible, and by physiological assay when the older method is inexpedient. Then the physician will be spared the humiliation of palpable impotence in the face of danger. There will be no occasion for experiment at the bedside.—*From Editorial in Buffalo Medical Journal, U.S.A.*

The Test of Time and Experience

THIRTY YEARS OF CONFIDENCE on the part of the Profession have established, beyond all question, that

NERVOUS EXHAUSTION

NEW LIFE & VIGOR

Nervous Exhaustion, or Neurasthenia, as it is now called, is well defined by that world-famed scientist and investigator

DR. JAMES H. BEARD, M.A., M.D.,

to be "a chronic functional disease of the Nervous System, the basis of which is impoverishment of Nervous force, waste of Nerve tissue in excess of repair, hence the lack of inhibitory or controlling power—physical and mental—the feebleness and instability of nerve action, and the excessive sensitiveness and irritability, local and general, direct and reflex. The fatigue and pain that temporarily follow excessive toil or worry or deprivation of food or rest, are symptoms of Acute Neurasthenia, from which the chronic form differs only in permanence and degree. Nervousness is really Nervelessness." There are thousands of people who, given up as incurables, their strength and powers undermined as a result of Nervous Exhaustion, to whom "NEW LIFE AND VIGOR" are magic words, are languishing for the greatest of all blessings: Robust Health and Restored Vitality. To all such we commend the use of B. & S SOLUTION, the celebrated remedy discovered by Dr Lawrence, M.D., which has been used in all parts of the world for over quarter of a century.

B & S SOLUTION

Registered and protected against infringements under the Trade Marks Act

is a scientific exhibit of a combination of well-known drugs of the highest possible quality and at once recognizable by the therapeutist as a MOST VALUABLE NERVE TONIC

This remarkable compound, the result of the latest developments of modern Chemistry, Pharmacology, and Therapeutics, is without an equal in all cases of Nervous Exhaustion and Premature decay, whether induced by worry, overwork, or other exhausting causes. As a real nervine tonic and invigorating agent it has no equal in the whole field of Therapeutics and may be relied upon to impart "NEW LIFE AND VIGOR," and to restore weakened constitutions to pristine strength and energy. When every other medicine has failed, B. and S. SOLUTION has been prescribed in the most inveterate cases by the best physicians with success, and there are thousands of living witnesses to attest to the benefits derived from this great modern invention. The Profession will find it to be without a rival and the finest medicine ever brought to their notice.

DOCTORS TESTIFY

In strong terms to the merits of B. & S. Solution in such words as the following:

Dr. Dhever, L.M.S., Shimoga: "My patient is improving."—Dr. Day, M.B., Tirhut: "From the use of one bottle of your preparation, I have received such encouraging report from a patient that I intend whenever I have a chance to recommend it."—Dr. Child, M.A., M.D., Dhr Tumpore: "The results are surprising and are more than I anticipated."—Dr. Das, L.M.S., Dinapur: "Send another bottle. The first appears to have done some good."—Mr. M. M., Dacca: "Send three bottles, as ordered by Dr. Burnett." Mr. M., Kindat: "I am recommended by the Civil Surgeon that B. & S. Solution is a good remedy for Nervousness and Debility."—Dr. Spinner, B.A. M.D., Ootacamund: "I have used nothing in my practice better."—Dr. Mudliar, Medical Specialist, Madras: "Surprised at the results."

B. & S. SOLUTION is put up in two sizes:—Per bottle, Rs. 3-8 and Rs. 6, (32 & 64 doses.)

REGISTERED SOLE PROPRIETORS:

LAWRENCE & LYNCH,

LONDON Empire Chemical Works CALCUTTA

OVER 30,000 TESTIMONIALS.

CAUTION.—The Proprietors will take immediate legal proceedings against all persons pirating their registered Trade Mark, "B & S. SOLUTION," Labels, Wrappers, &c., or Advertisements, or in any other way infringing their rights.

Registered Telegraphic Address: INDIGENOUS, CALCUTTA.

The Survival of The Fittest

Reviews of Books.

A Manual of Normal Histology and Organography.—By Charles Hill, Ph.D., M.D. Phil.: Lond., W. B. Saunders Co., 1906.

This Manual of Histology and Organography, as the preface states, is simply to bring the fundamentals of histology before the student and to leave much detail to be supplemented by the teacher in charge. The subject is touched upon from every standpoint and froms a fairly good outline for teaching elementary students. The author commences with a chapter on "Preparation of Material," which is simple, complete and comprehensive. The original drawings throghout are, however, lacking in detail but there are many excellent illustrations taken for Bohm and Davidoff. The text is very clear and the type is large enough to make easy reading. The last chapter is devoted entirely to laboratory directions as to how to obtain the various tissues mentioned throughout the book and is a great aid to one not familiar with histologic technic. R. C.

Government Medical Notifications.

INDIA.

Lieutenant-Colonel F. P. Maynard, M.B., F.R.C.S., I.M.S. (Bengal), Professor of Ophthalmic Surgery, Medical College, and Ophthalmic Surgeon College Hospital, Calcutta, is granted privilege leave for one month and 13 days with study leave out of India for six moths and 17 days, in continuation, with effect the 11th March 1908, or the subsequent date on which he may avail himself of it.

Major F. O'Kinealy, I.M.S. (Bengal), is appointed to officiate as Professor of Ophthalmic Surgery, Medical College, and Ophthalmic Surgeon, College Hospital, Calcutta, during the absence on leave of Lieutenant-Colonel F. P. Maynard M.B., F.R.C.S., I.M.S. (Bengal), or until further orders.

The services of 2nd Class Assistant Surgeon W. C. MacMillan, Indian Subordinate Medical Department, have been placed at the disposal of the Goverment of Burma for temporary employment in that province in connection with plague, with effect from the 10th December 1907.

The services of 4th Class Assistant Surgeon R. S. Keelan, Indian Subordinate Medical Department, have been placed at the disposal of the Government of United Provinces of Agra and Oudh, for temporary employment on plague duty, with effect from the 22nd November 1907.

The undermentioned officer has been permitted by the Secretary of State to retire from the service, subject to His Majesty's approval, with effect from the date specified :—

Lieutenant-Colonel John Charles Lamont, M.B., Indian Medical Service, Bengal,—10th March 1908.

BENGAL.

Lieutenant-Colonel T. Grainger, I.M.S., Civil Surgeon, was attached to the office of the Principal Medical Officer, Presidency and Assam Brigades, for a period of two months, from the forenoon of the 14th November 1907 to the afternoon of the 13th January 1908.

Lieutenant-Colonel T. Grainger, I.M.S., Civil Surgeon, is posted to Muzaffarpur, with effect from the afternoon of the 20th January 1908, during the absence, on deputation, of Lieutenant-Colonel C. M. Green, I.M.S., or until further orders.

Lieutenant-Colonel G. F. A. Harris, I.M.S., Professor of Materia Medica, Medical College, Calcutta, and ex-officio Second Physician to the College Hospital, is attached for a period of two months to the office of the Principal Medical Officer, Presidency and Assam Brigades.

Captain M. Mackelvie, I.M.S., Officiating Resident Physician, Medical College Hospital, Calcutta, is appointed to act as Professor of Materia Medica, Medical College, and ex-officio Second Physician to the College Hospital, in addition to his own during the absence, on deputation, of Lieutenant-Colonel G.F.A. Harris, I.M.S., or until further orders.

UNITED PROVINCES.

Third Class Military Assistant Surgeon A. H. Whitley, I. S. M. D., whose services have been placed at the disposal of this Government, to be in medical charge of Chakrata, Dehra Dun district.

Lieutenant Colonel C. Mactaggart, I.M.S., Member, Factory Labour Commission, is granted privilege leave for two months and twenty-one days, with effect from the 26th January 1908.

Captain N. S. Wills, I.M.S., Officiating Superintendent, Central Prison, Bareilly, to be substantive protempore in that appointment, vice Lieutenant-Colonel S. H. Henderson, I.M.S.

BURMA.

Second Grade Hospital Assistant, No. 148, R. Rungaswamy Iyer, on proceeding on three months' extraordinary leave, without allowances, relinquished charge at the General Hospital, Moulmein, on the afternoon of the 12th June 1907. This office Notification No. 511, dated the 19th June 1907, is cancelled.

Second Grade Hospital Assistant, No 148, R. Rungasawmy Iyer is accepted, with effect from the forenoon of the 13th September 1907.

Third Grade Hospital Assistant, No. 96, P. C. Rai has forfeited his appointment, with effect from the 28th September 1907 under Article 229 (1) of the Civil Service Regulations for having overstayed his leave.

Third Grade Hospital Assistant, No. 274 Shah Shair Ali, is granted an extension of three months' leave on medical certificate in continuation of the leave granted in this office Notification No. 182, dated the 19th February 1908.

REASONS WHY.

KEMPS	EXCELLENT	MEDICINES	PRODUCE	SATISFACTION
KEMPS	EXCELLENT	MEDICINES	PRODUCE	SATISFACTION
KEMPS	EXCELLENT	MEDICINES	PRODUCE	SATISFACTION
KEMPS	EXCELLENT	MEDICINES	PRODUCE	SATISFACTION
KEMPS	EXCELLENT	MEDICINES	PRODUCE	SATISFACTION
KEMPS	EXCELLENT	MEDICINES	PRODUCE	SATISFACTION
KEMPS	EXCELLENT	MEDICINES	PRODUCE	SATISFACTION
KEMPS	EXCELLENT	MEDICINES	PRODUCE	SATISFACTION

KEMP'S

PROTUMEN

(Registered.)

Contains 92% Proteid and forms an ideal Food.

Pamphlets and directions on application, 8 As. Re. 1 & Rs. 2.

1. We have a large and highly trained staff of English Qualified Chemists.
2. Our goods are fresh, being prepared on the spot.
3. Our prices are the very lowest, consistent with quality.
4. Our experience as trained chemists enables us to select drugs with certainty.
5. Being large manufacturers, we are in touch with European houses.
6. We guarantee our products to be of B. P Standard.
7. There is no waiting for medicines, they are always ready in India.
8. We test everything periodically, thus ensuring genuineness.
9. We can give any information about *all* drugs.
10. We place forty years of experience in medicine at your disposal.

KEMP'S

PAPARIDINE.

Rx. Papaw Juice	½ gr.
Irisin Concd.	¼ „
Liq. Potas. P.B./98	1 m.
Dil. Ac. Hydrocy.	½ „
Tr. Card Co. B.P./85	1½ „
Sp. Peppt.	1½ „
Bism. et. Am. Cit.	3 gr.

In each Tablet.

TABLETS.

FOR DYSPEPSIA.

WE CAN SUPPLY

You with any Drugs, Instruments, or article required to your satisfaction both as regards QUALITY and PRICE.

KEMP'S

FLUID EXTRACTS

Reliable, Fresh, guaranteed to Standard.

Save
Waste
Labour
Space, &c.

FOR TINCTURES

PRICE LIST FREE.

Wholesale Price List.

Published in February and August. Free to any Medical man on application. It contains over 200 pages, and gives information and prices of everything connected with Medicine and Pharmacy.

KEMP & CO., LD.,
Pharmaceutical Chemists,
BOMBAY.

KEMP'S

Extract of Chicken

Prepared by Leibig's process from the flesh and bones of Chicken, of exquisite flavour and readily taken by invalids, &c., Re. 1-12 per pot.

Proprietors of "The Prescriber's Pharmacopœia" a Standard work in India, Rs. 5 per copy

LAWRENCE & LYNCH'S

PRUNIMENVIB

UTERINE ALTERATIVE.

Exercises a tonic influence on the pelvic Organs; An alterative action on the uterine tissues; Relieves congestions, encourages peristalsis; Removes spasmodic conditions; Regulates the vascular Supply. A Safe and certain Remedy.

ASSURE RESULTS BY PRESCRIBING PRUNIMENVIB.

FROM ALL CHEMISTS.

THE

LONDON DIRECTORY

CONTAINS

Maps of London and Suburbs,
Arranged in Atlas form, for convenient reference without folding.

Street Guide to London,
Locating the positions of the Streets, Roads, Lanes, Squares, Market Place, &c.

Commercial Directory of London,
An Alphabetical Register of Businesses in the City and surrounding London Districts.

Trade Directory of London,
With exhaustive references connecting kindred trades.

List of Export Merchants,
Showing the Goods they ship, and the Foreign Markets they supply.

List of Steamship Lines,
Arranged under the Ports to which they sail, and indicating the approximate Sailings.

Local Trade Directories of over 100 Suburban Districts,
Arranged so as to be equally serviceable for circularising, canvassing, or ordinary reference purposes.

Appendix of Leading Provincial Firms, etc.,
Classified under their Trade Headings, and giving some details of their specialities.

IN · MEMORY · OF ·
CAROLINE · SOBIESKI · LYNES · DAUGHTER · OF
JOHN · WYNNE · OF · GARTHMEILIO · ESQUIRE · AND
WIFE · OF · REVD JOHN · LYNES · OF · TOOLEY · PARK ·
LEICESTER · DIED · AT · CHESTER
ON · 26TH AUGUST · 1886 · AGED · 88 ·
AND · OF · EMMA · CATHERINE · LYNES ·
DAUGHTER · OF · THE · ABOVE · WHO · DIED · AT · CHESTER
ON 22ND APRIL · 1893 · AGED · 57
+ BURIED · AT · ST CATHERINES · LLANGWM +

ESTABLISHED JANY. 1852.

BROWN & COMPANY,

MONUMENTAL SCULPTORS, ETC., ETC.,

IMPORTERS OF MARBLE, GRANITE, STONE, STATUETTES AND STATUES FOR CHEMETRIS. WREATHS AND IN MEMORIAM CARDS.

Highest Quality Church Mural Brass Tablets. Plaster of Prais for Studious. Hospitals, and Engineering and building purposes.

Iron Railings. Marble and Parian Fingures.

THIOCOL "ROCHE."

For the Treatment of Tuberculosis.

ADVANTAGES OF THIOCOL OVER ALL OTHER GUAIACOL PREPARATIONS:

THIOCOL is non-toxic.
THIOCOL is absolutely inodorous.
THIOCOL is readily soluble in water.
THIOCOL has no irritating effect upon the mucous membrane.
THIOCOL is rapidly absorbed by the system.

THIOCOL TABLETS "Roche," 0·5 grammes (=8 grains), in tubes of twenty-five.

SIROLIN, an **ORANGE SYRUP** of **THIOCOL,** keeps indefinitely, and never spoils. **Pleasant** flavor. In original bottles only, of about 150 grammes = about 5 ozs.

AIROL "ROCHE."

FOR THE TREATMENT OF

Wounds, Burns, Varicose Ulcers of the Leg, Inflammation of the Cornea, &c.

ADVANTAGES OF AIROL OVER IODOFORM:

AIROL is non-toxic.
AIROL is inodorous.
AIROL has no irritating effect.
AIROL dries up wounds readily.
AIROL assists the granulating process.
AIROL in contact with warm secretions of the body immediately gives off a small quantity of Iodine.
AIROL contains Bismuth.

Manufactured by F. HOFFMANN—LA ROCHE & CO., **Basle.**

Samples and Literature on application to the Sole Agent for Great Britain

HUGO LORENZ, 7-8, Idol Lane, London, E.C.

Trade Mark—HELLENA—Trade Mark.

Look for our Name on Protecting-band, Label, and Wrapper. Beware of Counterfeits.

As used in the Harems of Persia and the East

HELLENA

NOTHING ELSE LIKE IT FOR THE HAIR

THE GREAT

HAIR PRODUCER AND RESTORER.

The Very Finest Dressing, Specially Prepared and Delicately Perfumed for the Toilet.

HELLENA

Produces Luxuriant Hair, Prevents its Falling off or Turning Grey. Unequalled for Promoting the Growth of the Beard and Moustache.

THE RENOWNED REMEDY FOR BALDNESS.

For Preserving, Strengthening, and Rendering the Hair Beautifully Soft; for Removing Scurf, Dandruff, &c., also for MAINTAINING THE ORIGINAL COLOUR OF HAIR.

"HELLENA" PRESERVES, STRENGTHENS, AND INVIGORATES CHILDREN'S HAIR.

HELLENA FOR THE HAIR.

As a medicated Hair Oil this preparation is unsurpassed, and absolutely unique; it in no way resembles anything being used in this country, being the identical and much-prized Hair Stimulant used in the Harems of Persia and the East. It possesses a delicate fragrance.

The verdict of scientific men everywhere, and of the public generally, has awarded the first and foremost place to HELLENA as a toilet and perfumed hair oil. It is used throughout the country by the European and Native gentry, Maharajahs, Rajahs, Maharanees and Ranees, Zemindars, Judges, Doctors and gentlemen and ladies of the highest social rank, and is more highly prized than the many imported hair oils of European and American manufacture. As a Therapeutic Agent, HELLENA soothes the brain, increases the power of intuition, stimulates the mental faculties, cools the scalp, improves the memory and regulates hasty judgment.

In 3 ozs. phials, Re. 1. Per dozen, Rs. 11.

Sole Proprietors—LAWRENCE & LYNCH, Calcutta.

Lawrence & Lynch, Empire Chemical Works, Calcutta.

EUROPEAN AGENCY.

[ESTABLISHED 1814]

WE wish to open accounts with all *bona fide* Colonial Buyers who are not already on our books, and on receiving precise details of their exact requirements, we shall be pleased to forward quotations for any European or American goods. Our reference books contain several million names, and our extensive connection enables us to make special terms with the most suitable wholesale manufacturers of each class of goods, so that evenafter adding our shippings commission of 1¼ to 5 per cent. (according to amount) our prices still compare favourably with those of the manufacturers.

We supply goods made specially to any style, quality or price; and on receipt of indent, with full and clear instructions, and remittance of cash, or produce to cover, our knowledge of the trade enables us to place the order at once in the best hands, and the goods are promptly forwarded.

We make up sample cases of most goods from £5 upwards; and, as we utilise our long experience in choosing such goods as are most likely to suit the market for which they are intended, we confidently recommend buyers to order these sample cases, for by doing so they will obtain the latest and most takng novelties.

Consignments of produce receive careful attention, and we give advances to any extent.

Prompt and painstaking attention to the interests of correspondents, together with exceedingly moderate charges, and plain and straight forward dealings, have enabled us to maintain for the greater part of a century, a reputation which we value too much to allow it to be tarnished by the unsatisfactory execution of a single transaction.

ADDRESS:—

WILLIAM WILSON & SONS.

MERCHANTS & MANUFACTURERS' AGENTS,

25, ABCHURCH LANE, LONDON, E. C.

Correspondence Invited.

Bengal Paper Mills Co., Ld.,

CALCUTTA.

WHOLESALE PAPER MANUFACTURERS

THE Company's productions have found much favour amongst buyers, and the mills have been enlarged in order to meet the ever-increasing demand.

SPECIALLY FAVOURABLE CONTRACTS ARRANGED WITH MERCHANTS, NEWSPAPERS AND PRINTING PRESSES.

Sample Books and Prices on application to

BALMER, LAWRIE & CO

MANAGING AGENTS,

108 Clive Street, Calcutta.

THE INDIAN DAY-BOOK.

Published Monthly.

The HANDIEST and MOST UP-TO-DATE

REFERENCE BOOK IN INDIA

A useful Book for the Home.

All Kinds of information with plenty of room for notes and memorandum.

Annual Subscription Rs. 4. 8.

Single Copies As. 6.

N.B.—No FREE Sample Copies.

HEAD OFFICE—DELHI.

BLIGHTS

FOR

Kerosine Emulsion

USE

Special Soft Soap

Rs. 11-8 PER CWT.

(IN 3½ CWT. CASKS.)

Bar Soap

Rs. 10-12 PER CWT

MADE BY

North West Soap Co., Ltd.,

Calcutta & Meerut.

'CASCARA EVACUANT.'

THE ENERGETIC PROPERTY OF CASCARA SAGRADA WITHOUT ITS BITTER PRINCIPLE.

CASCARA EVACUANT
An active and agreeable preparation of the unchanged bitterless glucosides of Cascara Sagrada, possessing all the desirable laxative properties of this valuable drug.
DOSE:
As a laxative, 10 to 15 minims three times a day; as a purgative, 20 to 30 minims morning and evening.
FROM THE LABORATORY OF
PARKE, DAVIS & CO.
DETROIT, MICH.

CASCARA EVACUANT should not be confounded with the multitude of "tasteless" cascaras with which every physician is familiar. It is scientifically prepared from the well-seasoned bark of the true *Rhamnus Purshiana*, and presents unimpaired the laxative non-bitter glucoside of that important drug. It is the most active, the most eligible, of all palatable preparations of Cascara Sagrada.

When we introduced it to our physician friends we predicted that it would prove a revelation. It was no idle prophecy. *The verdict of the profession is unmistakable.* CASCARA EVACUANT has fulfilled every promise made for it. IT *is* A REVELATION!

(Supplied in pint, half-pint, quarter-pint and half-gallon bottles.)

LABORATORIES:
DETROIT, MICH., U. S. A.
WALKERVILLE, ONT., CAN.
HOUNSLOW, ENG.

PARKE, DAVIS & CO.

BRANCH HOUSES:
New York, Kansas City, Baltimore, New Orleans, Chicago; London, Eng.; Montreal, Que.

Mercurol.

Supplied in the form of powder in ¼ oz., ½ oz., & 1 oz. bottles; and as Chocolate-coated Tablets, ¼ gr., ½ gr., 1 gr., and 2 grains.

Full literature on request ...

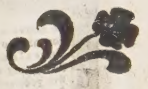
A TRUE chemical combination of Mercury (10%) with Nucleinic Acid. It is soluble in water, and does not coagulate albumen.

Mercurol is well adapted to the treatment of purulent conditions of a specific character on mucous surfaces, and has been found useful in

SYPHILIS,
GONORRHŒA,
OPHTHALMIA NEONATORUM,
CONJUNCTIVITIS,
OTITIS MEDIA,
and as an ordinary ANTISEPTIC DRESSING.

See articles in *Lancet*, 22/9/00, 15/12/00; *Medical Times*, 21/3/03.

Nargol.



Supplied in 1 oz., ½ oz., and ¼ oz. vials.

Literature on request.

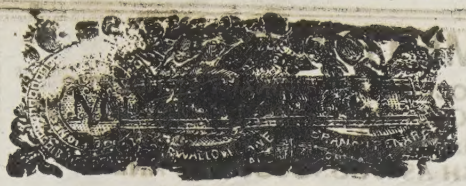
A CHEMICAL compound of Silver with Nucleinic Acid, containing about 10% of Silver. It is readily soluble in water, and possesses great penetrating power, with a very lasting effect. Solutions of **Nargol** are not precipitated by coming in contact with albuminoids. **Nargol** is strongly bactericidal, and has been particularly recommended in the treatment of various diseases of the genito-urinary tract, acute contagious ophthalmia, and suppurative conditions of the lachrymal sac.—See *British Medical Journal*, 2/11/01.

PARKE, DAVIS & CO.,

111, QUEEN VICTORIA STREET, LONDON E.C.

DETROIT, NEW YORK, CHICAGO, &c., U.S.A. *SYDNEY, AUSTRALIA.*
WALKERVILLE & MONTREAL, CANADA. *SIMLA (Punjaub), INDIA.*

Telegraphic Address: "CASCARA, LONDON."
Telephone No: 5940 BANK.



Established over 32 years.

EASY Reading Glasses to help your sight means glasses that are accurately and correctly fitted to the actual requirements of the eye. No trying to make the Eyes fit the Glass, as is too often the case.

Mullick & Co., the Pioneer opticians of the Metropolis will fit your eyes with a pair of their real Brazilian pebble Spectacles as you prefer and which will enable you to read perfectly without any effort or strain. If, therefore, you need glasses, there is every reason why you should have them from **Mullick & Co.**, the Pioneer opticians of the Metropolis.

Mullick & Co., will give you the benefit of skilled service free, and fine goods at fair prices.

You may do as well somewhere else, but you may not, and what is the use of taking chances.

Our Newly revised Price List sent free to any part of India.

MULLICK & CO.,

OCULIST OPTICIANS.

Branch : Benares. *37 Swallow Lane, Calcutta*

BALMER, LAWRIE & CO.,

BANKERS AND AGENTS,
CALCUTTA.

INVESTMENTS.—Government and other securities Debentures, Shares, etc., purchased, sold, and received for, and delivered from, safe custody. Dividends and interests collected at an uniform charge of ¼ per cent. commission.

REMITTANCES.—Drafts granted at the current rate of Exchange. Periodical family payments in England arranged on

CURRENT ACCOUNTS opened and conducted free of charge; interest credited half-yearly on minimum monthly balances of not less than Rs. 500.

FIXED DEPOSITS in sums of Rs. 500 and upward received for stated periods, on which interest is allowed, payable either in India or England. Terms on application.

Pay Bills and Pensions realised.

"Monthly Share List" forwarded free, on application.

Managers in India for the Scottish Amicable Life Assurance Society (Established 1826). Endowment assurances effected on favorable terms. Prospectus and full particulars posted on application.

LONDON AGENTS:

Messrs. ALEX. LAWRIE & Co.,

14 St. Mary Axe, C.E.

Supplied to Her Majesty Queen Alexandra.

THE GREAT FLORA AIR PURIFIER.

PETAL DUST.

The Sweetest and most lasting of perfumes.

Price As. 4 per packet.

Edward Cook's Lightning Soap: the quickest washer.

Price As. 7-6 per packet of 3 doubles.

Jones Bro's., Steel Trunks.

Single lock	... As. 4-6 per inch
Triple lock	... „ 5-6 „

To be had of

RELIANCE WORKS Co.,

2, Lalbazar Street.

A New Book for Pharmacy Students and others.

CHARACTERS AND IDENTIFICATION OF DRUGS.

ILLUSTRATED. Cloth Rs. 2. By T. H Bonnar, Asst.-Surgeon M.C.P.S., L.S.M.D. Apply to Newman & Co., or School Book Society, Calcutta; Higginbottam & Co., Madras and Bangalore Thacker & Co., Bombay Golab Singh & Co., Lahore Am. Baptist Press, Rangoon.

—A most practical and useful book—which should be in the hands of every medical student in India.

(Editor "Indian Medical Gazette.

METHYLOIDS

A GONOCOCCIDE AND URINARY ANTISEPTIC
AN ADVANCED AND CLEANLY METHOD OF
ADMINISTERING METHYLENE BLUE,
WHICH AS A GONOCOCCIDE AND
URINARY ANTISEPTIC IS
HIGHLY ESTEEMED

Methyloids are capsoids—tiny, completely filled capsules—of chemically pure methylene blue combined with the highest quality of such synergetic remedies as copaiba, santal, Haarlem and cinnamon oils, making them almost

A SPECIFIC TREATMENT

for gonorrhœa, gleet and all conditions of the urinary tract requiring an antiseptic diuretic.

Methylene blue is strongly germicidal, especially to gonococci, and being eliminated through the urine, to which it imparts a deep-blue color, is of peculiar value in the treatment of bacterial infections of the urinary organs.

Only the purest methylene blue should be used internally. Each batch of this agent used in Methyloids is tested by expert chemists and verified as being a chemically pure article. **Methyl** blue and its admixtures have led to poisoning when used through mistake for methylene blue.

Methyloids possess a therapeutic merit peculiarly their own and must be tried to be appreciated.

Are offered in amber vials, 40 each.

A Liberal Sample will be sent to any Medical man upon Application.

FREDERIC STEARNS & CO.

Manufacturing Pharmacists, DETROIT, MICHIGAN, U. S. A.

EUQUININE

IS

TASTELESS QUININE

AND

THE ONLY RELIABLE REMEDY

FOR

Malaria, Fever, Whooping Cough, etc.,

Obtainable through all Chemists.

SOLE AGENTS:

Schroder Smidt & Co.-Calcutta

BOUND VOLUMES

Of *The Indian Lancet*, with a carefully compiled index, for 1892; 1893; 1894; 1895; 1896; 1897; 1898; 1899 and 1900:—

May be had on application to the Manager, *The Indian Lancet*, 3, Wellesly Street, Calcutta.

SMOKE

THE "DARLING" CIGARS,

The best Holland Havanas

Rs. 5-8 per 100.

SOLE AGENTS:

T. KERODE & CO.,

1, Chowringhee, Calcutta.

PRINTED AND PUBLISHED BY M. M. FERNANDEZ, AT THE "INDIAN LANCET" PRESS, No. 3 WELLESLEY STREET CALCUTTA
Sole Agents for Great Britain Messrs. Gordon and Gotch No 15, St. Bride Street Ludgate Circus London E.C.